INTERNATIONAL Herald Tribune

E WEATHER — PARIS: Friday, cloudy. Temp. 11-20 (52-Saturday, fair. LONDON: Friday, cloudy with showers. 11-16 (51-61). Saturday, cloudy, possible rain. CHANNEL: Moderate. ROME: Friday, partly cloudy, possible rain. 16-19 (61-66). NEW YORK: Friday, cloudy. Temp. 19-26 (66-79).

ADDITIONAL WEATHER — COMICS PAGE

Published with The New York Times and The Washington Post

Abu Dhabi	4.50 Dirh	Greece	22 Drs	Netherlands	1.75 Flor		
Algeria	3.00 Din	Iceland	150 I.Kr	Nigeria	70 K		
Austria	12 S	India	Rs. 8	Norway	3.25 N.Kr		
Bahrain	0.400 Din	Iran	70 Rials	Oman	0.425 Rials		
Belgium	23 B.Fr.	Israel	I £17.00	Portugal	25 Esc.		
Cyprus	250 Mils	Italy	500 Lire	Qatar	4.00 Rials		
Denmark	3.75 D.Kr.	Jordan	0.300 Fils	Saudi Arabia	3.50 Rials		
Dubai	4.50 Dirh.	Kenya	Sh. 8.00	Spain	50 Ptas.		
Egypt	50 P.	Kuwait	0.300 Fils	Sweden	3.00 S.Kr		
Eire	27 P.	Lebanon	0.2.75	Switzerland	1.70 S.Fr		
Finland	3.00 F.M.	Libya	L.Din. 0.25	Tunisia	3.25 Din		
France	3 F.	Luxembourg	23 L.Fr	Turkey	1 £. 15		
Germany	1.50 D.M.	Madeira	27.5 Esc.	U.S. Mil (Eur)	$0.35		
Great Britain	20 P.	Morocco	3.00 Dir	Yugoslavia	22 D		

No. 29,958 * PARIS, FRIDAY, JUNE 8, 1979 Established 1887

United Press International

d by two former Auschwitz inmates, Pope John Paul II walks ough the World War II concentration camp yesterday.

ays at Wall of Death

ohn Paul II Offers Mass or Victims at Auschwitz

By Peter Osnos

USCHWITZ, Poland, June 7) — Pope John Paul II prayed y in a dungeon cell at Aus- itz, knelt alone at the Wall of th there and then held a solemn s on the rear platform of Birk- , where victims for the gas nbers were chosen.

hese Nazi concentration camps re 4 million persons died are od pieces now, kept pristine by sh authorities as museums of st horror.

ut the pope's visit was more an opportunity for religious or tical propaganda. From the ment he strode beneath the in- us wrought-iron motto on chwitz's gate — *Arbeit Macht* Work Shall Make You Free — pontiff stepped into a realm of ique historical symbolism.

o pope had ever been to such a p. His presence, as a Pole and e leader of the world's Roman olics, was meant as heartfelt te to the martyrdom of those perished in the camps, includ- about 2.5 million Jews, whom pontiff especially singled out in vords at Birkenau.

The very people that received n God the commandment, u Shalt Not Kill,' " he said, lf experienced in special mea- s what is meant by killing. It is permissible for anyone to pass his. . .with indifference."

he pope's remarks were signifi- because in the anger and bit- ess of Polish Communism's Zionism, the full fate of Jews during World War II has been ed down in recent years.

eparting from his prepared , the pope also dwelled on those sians who died in Nazi camps, he praised the courage of the et people during the war. The itive mentions of Jews and sians drew long applause from huge crowd, jammed amid the ed-wire fences, watchtowers prison barracks of Birkenau.

is voice cracking with emotion fatigue from the efforts of his days in Poland, the pope again aside his prepared remarks and claimed, "Never, never again Only peace, only peace."

he pope arrived here in mid-af- oon from what was perhaps his t pleasant stopover to date, a to his birthplace at Wadowice. his mood visibly turned to one ain as he made his way through neatly swept paths of Aus- itz to cell block 11, known in camp as the block of death.

ccompanied only by a few rch officials and an official pho- apher, the pope went inside to No. 18, where the leading Pol- religious martyr of the war, Maksymilian Kolbe, had been fined.

ev. Kolbe, who was beatified in 1, was a prisoner in Auschwitz he end of July, 1941, when he nteered to take the place of an- r man, Franciszek Gajowni- k, who had been selected by the to die by starvation. Father lbe's grim offer was accepted was placed in the cell to starve l Aug. 14, when he was finally d with a phenol injection in the t.

mong those present outside cell k 11 today was Mr. Gajowni- k, now 78. He was held in Nazi ps until May, 1945.

While visiting church dignitaries n West Germany stood by, he ponded to a query on whether he forgiven the Germans. "As a holic it is my sacred duty to give," he replied. "But as a Pole as a human, I would have to k very long."

he pope was escorted to the ll of Death, which adjoins the th cells. There, in a narrow rtyard, stands a gray wall

ussein to Visit Libya

UWAIT, June 7 (UPI) — King ssein of Jordan will visit Libya for talks with Libyan leader ammer Qadhafi, it was reported y.

against which an estimated 20,000 persons were shot to death. Polish officials stood to one side as he pope walked to the wall and knelt in front of a wreath of daisies and carnations.

For several minutes he remained completely still except for the flutter of his eyelids as they opened and closed in prayer.

When he arose, officials clustered around him, but the pope barely spoke as the group walked back through the empty camp toward his limousine.

There are surrealistic aspects to Auschwitz now — the ice cream stands inside the compound, for instance, and the dry monotone of guides who have told the same ghastly stories so many times that they manage to make them sound almost banal.

Today, Auschwitz was closed to the public.

Militant Israelis Settle Near Arab City in West Bank

By Paul Hofmann

JERUSALEM, June 7 (NYT) — A militant Israeli group started a controversial new settlement today near Nablus, the largest Arab city in the West Bank of the Jordan, in the presence of government officials and an army contingent.

Arab landowners were handed requisition orders, and bulldozers immediately started cutting an approach road to the hilltop site assigned by the military government to Gush Emunim (Faith Bloc), a national religious movement. Gush Emunim members who intend to build a village on the Arab-owned land about a mile east of the outskirts of Nablus, and supporters who want to stay with them initially, then moved in tents and other equipment.

Agriculture Minister Ariel Sharon, who attended the takeover, said that with the founding of the new community, the government had proved its credibility "internally and externally."

Speed, Secrecy

Speed and secrecy characterized the settlers' takeover of the hilltop. Three bulldozers were brought in on heavy trucks by the Jewish Agency, which is in charge of absorbing immigrants. A civilian helicopter flew in a power generator and other heavy equipment.

Mr. Sharon, a military leader in the 1973 war who takes a hard line in Israeli-Arab relations, heads a government committee in charge of settlement activities. He said that government backing of the Gush Emunim project gave "unequivocal expression of the right to Jewish settlement in all parts of the land of Israel." Representatives of the World Zionist Organization were also present at the hillside.

Quick help from civilian and military authorities enabled the Gush Emunim settlers to set up camp only four days after the Cabinet, in an 8-5 vote with three abstentions, had approved their plans. Deputy Prime Minister Yigael Yadin, Defense Minister Ezer Weizman and Foreign Minister Moshe Dayan were among the dissenters at the Cabinet meeting on Sunday.

The government's decision was harshly criticized by the United States. A State Department spokesman declared in Washington on Monday that the new settlement would be "harmful to the peace process."

Egypt Opposed

Two Israeli Cabinet members, Mr. Dayan and Interior Minister Yosef Burg, who had talks with Egyptian leaders in Cairo this week, were told by their hosts that Jewish settlement activities in the occupied territories should be curbed rather than pushed.

Officials pointed out that the land for the new settlement had not been expropriated, and that the Arab owners retained legal title to it while the Gush Emunim group was allowed to take possession. The 200-acre, rock-strewn site had been uncultivated. The new community will be known as Elon Moreh, a place-name found in the Bible.

The Nablus City Council voted at an extraordinary meeting tonight to cable a protest to Defense Minister Weizman. "The responsibility for any future repercussions rests with those who decided to start the new settlement," the message said. A spokesman said that protests had been sent to the United Nations and other international bodies.

The Labor Alignment, Israel's largest opposition force, announced that it would press for a parliamentary debate on the new settlement.

United Press International

British Caledonian Airways engineers inspect engine mountings of one of their DC-10s yesterday.

U.S. Ban On DC-10 Extended

Europe Airlines Protest Action

From Agency Dispatches

WASHINGTON, June 7 — The U.S. fleet of DC-10s will be grounded for at least a week, the head of the Federal Aviation Administration said yesterday, while engineers seek to correct what may be a design defect in the plane's engine-mounting system.

In London, British Caledonian Airways today threatened to sue the U.S. agency if it did not satisfactorily explain why it grounded the long-range, Series-30 version of the DC-10 used by the airline. British Caledonian said that it was consulting with other European airlines to consider joint moves to counter what it called the FAA's discriminatory action.

All British-registered DC-10s were grounded by the British Civil Aviation Authority after the FAA made its ruling after cracks were found in the engine mountings in two American Airlines planes.

British Caledonian, which has three Series-30 DC-10s, the long-range model, said it was urging the British agency to press for lifting the U.S. grounding order for the Series-30 planes. "All the cracks found have been in the shorter-range DC-10 Series-10 version, which has a high number of flying hours and more frequent takeoffs and landings," the spokesman said.

Meeting in Europe

Meanwhile, a Swiss civil aviation spokesman said today that West European aviation authorities will meet in Zurich on Tuesday to discuss ways of avoiding the U.S. ban on DC-10s.

A spokesman at the Swiss Civil Aviation Authority's headquarters in Zurich said Switzerland had invited aviation officials from France, the Scandinavian countries

(Continued on Page 2, Col. 1)

- **The suspension of certification for the DC-10 has heightened concern about possible financial damage to McDonnell Douglas, and analysts are wondering how seriously airline profits will be affected. Page 17.**

60,000 Passengers Affected in U.S.

Grounding Disrupts World Air Traffic

By Fred Ferretti

NEW YORK, June 7 (NYT) — Domestic and international air travel was thrown into chaos yesterday as almost every DC-10 airliner around the world was ordered grounded.

Flights were canceled, passengers were switched to other planes and airlines sent their customers to competitors after a grounding order was issued by the Federal Aviation Administration, which acted after two DC-10s in San Francisco were found to have hairline cracks in their engine mountings.

The Air Transport Association, an industry group, reported that more than 60,000 passengers were affected by the FAA's decision, which was taken as an international warning and heeded by almost all airlines flying the wide-bodied DC-10s.

Financial analysts, assessing the impact of the grounding, said millions of dollars would probably be lost by airlines that rely heavily on the DC-10.

Telephone lines to airlines were clogged as people tried to find out about flights. At airports, particularly such busy ones as Kennedy International Airport here and O'Hare International Airport in Chicago, passengers moved from counter to counter, trying to make air connections.

Hardest Hit

McDonnell Douglas, which builds the DC-10, said that 246 of the planes had been delivered to airlines around the world.

United and American, which own 67 of the 138 DC-10s in the U.S. fleet, were the major airlines hardest hit by the grounding order. Only 37 of United's 336 planes are DC-10s, but they account for 23 percent of the airline's seats, according to a company spokesman. He said that United's passengers were transferred to other planes and sometimes by bus to other airports.

American said that 25 of its 30 DC-10s had been scheduled for use yesterday, which would have accounted for 100 flights. Art Jackson, American's vice president for media relations, said the airline was doing its best to shift passengers or planes but said, "It's possible we won't be able to shift them all. It's going to make things tight all over, but safety is our primary concern."

The Port Authority of New York and New Jersey, which operates the New York metropolitan area's three main airports, said that 24 DC-10 flights were scheduled to leave from Kennedy yesterday and 24 were to arrive. Newark was to have had 18 in and 18 out, and La Guardia, three in and three out.

Perhaps most severely affected at Newark was the DC-10 operation of World Airways, which has been operating 599 flights to and from Los Angeles. All its planes are DC-10s and a spokesman said yesterday, "We don't have any idea of what we're going to do."

Grounded in Japan

In Tokyo, Japan Airlines was grounding all nine of its DC-10s, and in Madrid, Iberia grounded its seven. Lufthansa, the German airline, ordered its 11 grounded, Alitalia grounded its eight and Turkish Airways grounded its two. The five DC-10s in the Scandinavian SAS system were grounded, as were those belonging to Air Canada, Aeromexico, Singapore Airlines, Air New Zealand, and KLM, the Dutch airline. The groundings affected almost the entire fleets of some smaller foreign airlines.

In Caracas, the Venezuelan airline VIASA grounded its five DC-10s for the second time since the May 25 crash.

The French Air Ministry grounded the six DC-10s operating in France. All 10 DC-10s operating in Britain were grounded, including the six owned by Sir Freddie Laker. About 700 Skytrain passengers were immediately affected.

Sabena, the Belgian airline, first said that it would disregard the

(Continued on Page 2, Col. 2)

Jets Stay Down, Tahiti Tourists Get Extension

PAPEETE, Tahiti, June 7 (AP) — About 400 visitors got an extension of their stay today because of the groundings of DC-10s.

They were stranded here temporarily by the grounding of flights of UTA, a French airline, and Air New Zealand. Airline officials said they might not get away before the weekend, when Pan American has a Boeing 747 flight.

"Most of them apparently are taking it easy, enjoying a little more time in paradise before having to go back to the daily grind," a local airline official said.

U.S. Expected to Keep Rhodesia Sanctions

By Jim Hoagland

WASHINGTON, June 7 (WP) — President Carter is expected to tell Congress within a few days that he has decided to retain economic sanctions against Zimbabwe Rhodesia, but that he will reconsider his decision if the new government there significantly broadens its support, congressional sources said yesterday.

Mr. Carter's reported decision would represent the administration's first important shift from its firm alignment on the Rhodesian issue with the region's key African states, which oppose any restoration of trade until there is a negotiated end to the guerrilla war in Zimbabwe Rhodesia.

But Senate staff aides predicted that the reported compromise decision would not satisfy conservatives, who have been pushing for an immediate end to sanctions against the biracial government headed by Bishop Abel Muzorewa, the prime minister.

Reacting to the reports that a qualified negative decision on lifting sanctions was imminent, Sen. Jesse Helms, R-N.C., announced on the Senate floor that he would again seek Senate action to end the trade embargo as a sign of approval of Bishop Muzorewa's government.

Sen. Helms was also reported to be seeking an urgent meeting with the White House to try to arrange a last-minute compromise that would lift sanctions for one year and would then require a review of the prime minister's progress.

Administration officials refused to comment on the reports of Mr. Carter's action beyond confirming that a decision has been made.

At a State Department briefing, spokesman Hodding Carter 3d said that the decision could be "either up or down," and finally added that a "No" could be modified by a promise to look at the situation again later.

But senior officials said that the spokesman's comment was not based on any specific knowledge of the decision, which is a tightly guarded secret.

By a 75-19 vote, the Senate passed a resolution last month favoring the lifting of sanctions following the parliamentary elections that brought Bishop Muzorewa to the top of a government still partially controlled by Zimbabwe Rhodesia's small white minority.

The decision will come in a presidential determination required by

(Continued on Page 2, Col. 6)

China, Vietnam to Resume Peace Talks This Month

PEKING, June 7 (UPI) — China said today that peace talks with Vietnam would resume on June 25. It welcomed Hanoi's proposal to send a delegation here for the negotiations.

"As always, the Chinese side will do its utmost to enable the negotiations to make progress," the Foreign Ministry said in a note sent to the Vietnamese Foreign Ministry today and published by Chinese news agency.

The message replied to a proposal from Hanoi on May 28 that the talks, broken off after several fruitless sessions in Hanoi, should resume this month in Peking.

"In accordance with the Chinese-Vietnamese agreement on the negotiations between the government delegations of the two countries to be held alternatively in Hanoi and Peking, the second round of the negotiations is to be held in Peking," the Chinese note said.

The Hanoi talks yielded little except an agreement to exchange prisoners taken during the month-long war between the two countries that started in February. The border has remained tense since Chinese forces pulled back in mid-March, with both sides continuing to report armed provocations.

U.S. Official Depicts Threat of Bigger War

By Hedrick Smith

WASHINGTON, June 7 (NYT) — Six weeks after the Chinese-Vietnamese border war, U.S. specialists believe that China failed to achieve most of its objectives, raising the danger of another, larger border conflict in the next year or so.

The U.S. appraisal is that the Vietnamese have not been taught the lesson that China's senior deputy premier, Deng Xiaoping, said was the objective. A month ago, during a visit to Peking by UN Secretary-General Kurt Waldheim, Mr. Deng threatened another military strike against Vietnam.

"If there is a second war, it will be bigger than the first," a high-ranking U.S. official said. "That war resolved nothing. The Vietnamese have not changed policy. They've shown no fear of China."

This official rated the odds of another conflict in the next year or two as at least 50-50. Other officials experienced in Asian Communist affairs rated the chances somewhat less, but still saw war as a serious possibility.

Cambodia Contingent

By U.S. reckoning, a Chinese objective was to force Vietnam to withdraw some of its troops from Cambodia, where they had led an insurgent Cambodian movement against the regime of Premier Pol Pot, a Chinese ally. But instead of withdrawing, Vietnam is believed to have increased its forces in Cambodia by 30,000 to 40,000 men.

U.S. intelligence indicates that initially, during the Chinese-Vietnamese fighting, the Vietnamese did shift some of their best military units out of Cambodia. But since

(Continued on Page 2, Col. 7)

Russians Launch Unmanned Soyuz

MOSCOW, June 7 (UPI) — The Soviet Union has launched an unmanned Soyuz capsule into orbit in an effort to learn why the planned docking of a manned mission in April had to be canceled.

Tass announced that Soyuz-34 was programmed to go into orbit and later to dock with the orbiting Salyut-6 space station, where cosmonauts Vladimir Lyakhov and Valery Ryumin have been working for more than 100 days.

"The craft's autonomous flight program includes a trial check of the operation of the approach-correcting engine unit, improved with the experience gained during the flight of Soyuz-33 spacecraft last April," Tass said.

Four Nations Go to Polls

Turnout Low for Europe Vote

By Joseph Fitchett

PARIS, June 7 (IHT) — Confirming anticipated grassroots apathy about the election of the European Parliament, the voter turnout today was exceptionally low in Britain, Denmark, Ireland and the Netherlands — the first four Common Market countries to go to the polls.

Ballot counting will not start until Sunday night after all nine EEC countries have voted in the first direct election for the 410-seat European Parliament.

The first indication of political trends showed a small rightist swing in the Netherlands. In a survey issued tonight after the polls closed, the Dutch national news agency forecast a 35-percent share of the vote for the ruling Christian Democratic Party — an improvement on their showing in the last national election.

This would give the Christian Democrats 10 seats of the 25 allotted to the Netherlands, which has 9 million voters. The Socialist Party, which previously had the largest electorate, was expected to get only nine seats, slipping to second position. The remaining Dutch seats will go mostly to conservative splinter parties, the forecast said.

Only 58 percent of the electorate cast ballots, however, despite traditional Dutch support for European unity. The turnout was very low compared to the 87 percent participation in the last general election.

Large numbers of voters also stayed home in Britain, Ireland and Denmark, according to initial reports.

As polls closed in Britain, the turnout was put by commentators at less than 50 percent, well below the 76 percent of the electorate that voted last month in the general election. Polls said that Prime Minister Margaret Thatcher's Conservative Party would win the bulk of Britain's seats.

Former Prime Minister Edward Heath, the Conservative leader who took Britain into the Common Market in 1973, made an uncharacteristically emotional appeal to voters. "Europe is making history," he said, "and the world is watching us."

Last-minute appeals, however, appeared too late to bring out voters after generally lackluster campaigns in the Common Market countries that have left voters confused or indifferent about the European Parliament's possible impact on their daily lives or contribution to European unity.

Less than 48 percent of Danish voters cast ballots, 13 percent below the level of the last election there.

In Ireland, where the European election coincided with local elections, voter turnout was expected to reach at least 55 percent, but Dublin commentators said the turnout might have slumped below 40 percent if the European election had been held by itself.

Voting in Northern Ireland took place behind a shield of 30,000 British soldiers. The strife-torn province will fill three of the United Kingdom's 81 seats. Every voter was being searched before entering the polling booth after the Irish Republican Army threatened to disrupt the election.

U.S. Draft Bill

WASHINGTON, June 7 (AP) — A bill that would renew military draft registration for all men aged 18 through 26 was approved today by a Senate subcommittee. The issue might reach the Senate floor for debate next week.

After Khoramshahr Fighting

Iran, Arabs Announce Khuzestan Accord

By Sajid Rizvi

TEHRAN, June 7 (UPI) — Ethnic Arab leaders and military and civilian authorities announced agreement today to end several weeks of conflict in Iran's oil-producing southern province of Khuzestan, which included bloody clashes in Khoramshahr last week.

The agreement provides for Arab representation in local government and for public building projects in Arab villages. Arabs and non-Arabs are to share control of Khoramshahr, and the causes of the fighting last week between government troops and autonomy-seeking Arabs are to be investigated.

The agreement did not bring settlement of a four-week-old dock strike that has crippled Khoramshahr port. Nor did it provide for dismissal of the governor of Khuzestan province, Rear Adm. Ahamad Madani. Several thousand Arabs were holding a sit-in at the main mosque in Khoramshahr to obtain the officer's dismissal when the agreement was announced.

In other developments today, a former policeman was executed after trial in an Islamic court, and five other persons were sentenced to imprisonment and lashing.

Army units were reported to have been reinforced on the Iraqi border after an Iraqi air attack Monday on six Kurdish villages that was said to have killed six persons.

The fighting in Khoramshahr started last week after Adm. Madani began a campaign to disband and disarm Arab guerrilla groups operating in the region. Arab protesters warned on Tuesday that they would resume fighting today unless their demands were accepted. The government was reported to have taken strong measures to prevent new fighting.

Under today's agreement, Arabs who lost relatives in the fighting will be compensated. A group of persons arrested during the fighting will be released. The Arab Cultural Organization, an arm of the Arab political and guerrilla organization disbanded last week, will be allowed to resume activities gradually.

Before the agreement was announced, Adm. Madani had said that he would rather resign his post than agree to Arab self-rule in Khuzestan, Iran's major oil-producing area. He denied that there was racial conflict between Arab and non-Arab residents of Khuzestan, and blamed the violence on "imperialism and its agents."

He said that a brother — whom he failed to name — of Iraqi Vice President Saddam Hussein was helping agents of deposed Shah Mohammed Reza Pahlavi based in Iraq and Kuwait to smuggle arms into Iran.

Thorpe, 2 Others Refuse to Testify

LONDON, June 7 (UPI) — In a surprise move, Jeremy Thorpe declined to testify in his own defense today at his trial for allegedly plotting to murder former male model Norman Scott, who said that he had been Mr. Thorpe's lover.

Two of the former Liberal Party leader's three co-defendants also chose not to testify, leaving George Deakin the only defendant to testify on his own behalf.

As a result, the trial appeared likely to end next week, about a month ahead of schedule. Mr. Thorpe, Mr. Deakin and businessmen David Holmes and John Le Mesurier are charged with conspiracy to commit murder. Mr. Thorpe alone is charged with incitement to murder.

Egypt, PLO Warn Canada Against Shifting Embassy

CAIRO, June 7 (UPI) — Egypt and the Palestine Liberation Organization warned Canada today against moving its embassy in Israel from Tel Aviv to Jerusalem, as new Prime Minister Joe Clark pledged to do during his recent election campaign.

"Egypt would consider the moving of Canada's embassy to Jerusalem a hostile act against us and the entire Arab nation, an act that would bring grave consequences to Canadian-Arab relations," a Foreign Ministry spokesman said.

A senior aide to PLO Chairman Yasser Arafat, Abu Shara, said: "The Bell Telephone company, the Canadian one, has many contracts in the Middle East. The Canadians must know that they have interests in the Middle East and that such a step is against those interests."

The Egyptian statement said that Cairo was keen on preserving good relations "and we hope the Canadian government will be equally keen." The Cairo newspaper Al-Ahram reported that Egypt was protesting in Ottawa against the threatened move.

Associated Press

Nicaraguan National Guardsman searches a civilian refugee outside the city of Leon Wednesday.

Calls Its Support 'Completely Wrong'

Exile Leader Says U.S. Aiding Somoza

SAN JOSE, Costa Rica, June 7 (AP) — An exiled Nicaraguan opposition leader says that the United States is indirectly supporting President Anastasio Somoza, prolonging the Sandinista guerrilla-led national rebellion.

"The United States has not fully decided to contribute to the fall of Somoza," Carlos Tunnerman said in an interview recently. "We are not asking for American intervention. That same intervention put Somoza in power.

"We are asking the United States to stop helping him in any way," he said, suggesting that for one thing the U.S. government should ask Israel to restrict its sales of arms to Gen. Somoza.

Mr. Tunnerman also said that, although there are Marxists in the Sandinista National Liberation Front, "they are not the majority."

The 46-year-old exile leader is spokesman for "Los Doce" (The Twelve) — a group of a dozen businessmen, intellectuals and priests opposed to Gen. Somoza, whose family has ruled Nicaragua for 42 years. Mr. Tunnerman was rector of the National University of Nicaragua from 1974 until July 5 of last year, when he and the 11 other Los Doce members went into exile.

Meanwhile, Sandinista guerrillas pressed their "final offensive" in several Nicaraguan cities and towns. Gen. Somoza's national guard was reported fighting the guerrillas yesterday in Leon, the country's second-largest city.

Mr. Tunnerman said the United States should veto loans to the Nicaraguan government by the International Monetary Fund. He said Gen. Somoza recently used a $66-million IMF loan to help finance armaments, but the claim could not be verified.

"It's time the U.S. government realizes that in the case of Nicaragua, it [any form of support] is completely wrong," Mr. Tunnerman said. The United States is "really helping Communism. The longer Somoza stays in power, the more radical the fight will become.

"The longer the United States supports Somoza, the bigger its public relations disaster in Latin America will become. The United States wants a solution in its own best interests. But we need a Nicaraguan solution in the best interests of the people.

"Somoza creates a false dilemma," Mr. Tunnerman said. "He tries to say the alternative is him or Communism," and is using this "imaginary threat" to try to win support of Congress and the American people.

Fighting for Democracy

"The Nicaraguan people are not fighting in the streets to bring another totalitarian government into power," he said. "They want a democratic and representative system."

He described the Sandinista National Liberation Front — named after 1920s guerrilla leader Augusto Cesar Sandino — as a union of people of all political ideologies with two common goals: overthrowing Gen. Somoza and creating a government of national unity.

"We cannot deny there are Marxists in the Sandinistas, but they are not the majority. The Sandinistas do not want to seize power, the Sandinistas are backing an end to the Somoza government to then build a national union democratic government."

Gen. Somoza has said the Sandinistas are backed by an international Communist conspiracy aimed at removing him from power to create a second Cuba in Nicaragua.

The Nicaraguan president also has accused Costa Rica, Nicaragua's southern neighbor, of aiding the Sandinistas, and allowing them to maintain bases near the Nicaraguan border. But Costa Rica denies the allegations and says Gen. Somoza is trying to divert attention from his internal problems.

U.S. Grounding of DC-10 Will Last at Least a Week

(Continued from Page 1)

and the Netherlands to the meeting. The authority grounded all Swiss-registered DC-10s last night.

In London, Sir Freddie Laker accused U.S. aviation authorities of panicking in grounding the DC-10s. "I am very disappointed because I don't think the American decision is based on technical facts," Sir Freddie said. "I believe that this grounding is totally unnecessary."

Sir Freddie's six DC-10s, including those used for low-rate Skytrain flights to New York and Los Angeles, were grounded.

At Least a Week

"It's going to be some time," FAA Administrator Langhorne Bond said yesterday when asked how long the DC-10s will be out of service. "The grounding will remain in effect until the problem is found, analyzed and cured."

He said that the planes will not be airborne again until McDonnell Douglas Corp., the plane's manufacturer, proves that the aircraft is safe. He said that would take at least a week — longer if a major design change is required.

Mr. Bond said that the FAA will work closely with the plane's builder to pinpoint the problem and fix it. "We're going to outline our main design and maintenance procedures first and work from there," he said.

The FAA suspended the design certificate of the DC-10 yesterday after hairline cracks were found in the engine mounts of two jets that had been checked and cleared during other inspections conducted a week ago. The order affecting foreign-operated DC-10s in U.S. airspace was issued later in the day.

In Long Beach, Calif., McDonnell Douglas said it is considering going to court to try to overturn the FAA action.

The West German airline Lufthansa charged the FAA today with reacting hysterically. Mr. Reinhard Abraham, a board member of Lufthansa, which has grounded its fleet of 11 DC-10s, said that the FAA action was very unsatisfactory. Mr. Abraham said that, by its flying ban and inspection on installments, the FAA had "overreacted, not to say reacted hysterically."

Action Called Justified

The West German Federal Aviation Bureau contradicted Lufthansa and said the grounding was justified. A spokesman for the bureau said that a West German expert sent to the United States had reported that signs of metal fatigue were the main reason for the ban.

It was the fourth time in a week that all or some of the 138 U.S.-registered jets had been grounded in the aftermath of the May 25 crash of a DC-10 in Chicago. The American Airlines plane crashed and burned after an engine fell off during takeoff, killing 275 persons. It was the worst U.S. aviation disaster.

Mr. Bond said that FAA investigators had discovered a possible design problem in the aft rear bulkhead of the DC-10 engine mounting, which is one of the points where the engine attaches to the wing. A 10-inch crack that existed before the accident was found in this section in the engine that fell off the DC-10 in Chicago.

Asked how such a design defect might slip by FAA inspection, he replied, "That's what we've got to figure out."

Order Extended

The order banning foreign-owned DC-10s from U.S. airspace permitted those at American airports to take off for overseas destinations. But they could not carry passengers or cargo.

Meanwhile, U.S. District Judge Aubrey Robinson Jr. today extended from Monday until next Friday his order that U.S.-registered DC-10s be grounded.

Regardless of future FAA actions, the planes cannot resume flying while the restraining order is in effect. The order says the FAA cannot allow DC-10 flights until it learns why the Chicago jet lost an engine and until corrective measures are taken to prevent similar failures.

Grounding Disrupts World Air Traffic

(Continued from Page 1)

FAA warning but later said it would ground its three DC-10s.

In Zurich, Swissair grounded its nine DC-10s on orders of the Swiss Federal Civil Aviation Office, but the airline made it clear that it thought the order was unnecessary.

"On the basis of a detailed study of the situation, Swissair remains completely convinced that the DC-10 totally meets all airworthiness requirements," the airline said. "Repeated inspections of all parts have all proved negative."

Two Yugoslavian DC-10s flying here and to Australia were ordered to continue to their destinations, and a government spokesman said no decision on grounding them had been made.

At airports around the world, travelers were confused, resigned, angry or relieved when told of the cancellation of their flights.

At Kennedy, Maureen Andola of Poughkeepsie, N.Y., who had been scheduled to fly to San Francisco on a DC-10, was transferred to a 747. "I'd rather be inconvenienced," she said.

At La Guardia, Bill Broderick, a sales manager, said that instead of flying directly to California on a United DC-10, he was going "with luck to Dallas, then with luck to Denver, then with luck to San Jose."

At O'Hare in Chicago, there was much switching of passengers on American, Northwest and Continental flights. "What can you do?" asked a passenger. "There's no use in getting upset or anything."

In Miami, 17 scheduled domestic and international flights, most of them on National Airlines, were canceled and passengers transferred.

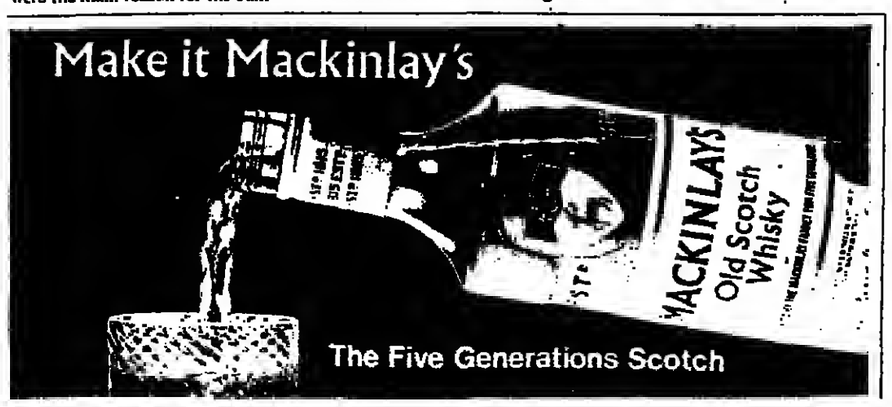
There was little effect at Boston's Logan Airport, where several 707s were deployed to relieve the press caused by the grounding, and at Dulles International Airport outside Washington, only about a dozen flights were affected.

Most people appeared by day's end to have reached their destinations or at least to be on their way, and many echoed Michael Hickey of Convent Station, N.J., who said of his efforts to get to San Francisco, "It doesn't really bother me as long as I get there. I'm not going to walk, and the only alternative is flying."

U.S. Racketeer Gets New Trial in Slaying

ALBANY, N.Y., June 7 (UPI) — The state Appellate Court today overturned the murder conviction of former New Jersey Teamsters Union official Anthony "Tony Pro" Provenzano, sentenced in the 1961 killing of a union rival.

The conviction last year was reversed on the ground that the judge had denied a defense challenge to a prospective juror. A new trial was ordered. The conviction of Harold "Boom Boom" Konigsberg, who was charged with helping Provenzano carry out the murder, was also reversed. Provenzano and three union associates were recently convicted in federal court in New Jersey of racketeering conspiracy charges.



Architect of Economy

Tunisia Premier Is Seen A Presidential Contender

By James M. Markham

TUNIS (NYT) — His name is hardly a household word outside his small nation, and for almost a decade he has labored purposefully in the long shadow of Habib Bourguiba, the ailing president. But Hedi Nouira is certainly the leading candidate to succeed the 75-year-old Bourguiba.

It is not considered politic or polite to talk of Tunisia's succession crisis, which dates almost from Mr. Nouira's appointment as premier in 1970. A sturdy-looking man, he regularly defers in conversation to the president-for-life.

But Mr. Nouira, 68, who was born in Mr. Bourguiba's hometown, Monastir, and was imprisoned with him by the French colonial authorities, runs Tunisia today and has been the architect of its remarkable economic performance, marked by a judicious mixture of state intervention and laissez-faire.

"We have known the bad side of socialism," the premier said, alluding to the collectivist period of the 1960s. "And for us, in economic matters, we adopt the kind of management and development envisaged by reformist liberalism. But we aspire to the socialist ethic of spreading the fruits of growth."

High Rate of Savings

With scanty natural resources, the Tunisian economy has expanded impressively, gross domestic product increasing by 9 percent last year. The growth was largely the result of short-run sacrifices and a high rate of internal savings imposed by Mr. Nouira. "Our policy is precisely to give the Tunisian something to defend," he said.

Discussing the Destourian (Constitutional) Socialist Party, Mr. Nouira said that the single party was necessary for building a modern state after independence from France in 1956. "Now we are in the second stage," he said. "It is the construction of the Tunisian economy — a modern economy that should permit Tunisian society to take off."

For the premier the essential questions in this nation of 6 million are employment, potable water and housing.

"Politics, as such, comes in priority after these," he said, outlining an essentially paternalistic vision of the state. "A man without employment, a man who is not educated, a man whose health is failing, who is not sure of the next day for his children — how do you want him to judge the manner in which his affairs are run? Worse still, he is subject to all kinds of demagogues."

UPI

Hedi Nouira

11 Million Can Vote

Egypt Chooses Parliament As Sadat Party Sets Pace

CAIRO, June 7 (UPI) — Egyptians voted today in the first democratic elections since the military revolution that overthrew the monarchy 27 years ago. Sources said it was a foregone conclusion that President Anwar Sadat's National Democratic Party would win by an overwhelming majority.

The biggest factor in the election was not whether Mr. Sadat's party would win but Mr. Sadat's personal standing with the people.

Each candidate was allotted a sign — a tree, a boat, a key, a camel, an umbrella or other object — to help illiterate voters identify him on the ballot.

Mr. Sadat's party was so sure of its ground that it put up only 361 candidates, 14 fewer than the number of seats at stake. It has left those seats to candidates from two "tame" opposition parties — the Socialist Labor Party and the Socialist Liberals. "President Sadat is our biggest asset," a National Democratic Party spokesman said.

More than 26,000 polling stations opened for nine hours of voting by an electorate of 11 million. About 1,600 candidates from four parties and independent elements ran for the 376 seats at stake, including 30 reserved for women for the first time. A constitutional rule decreed that at least half those elected must be workers and peasants.

The working class in agriculture and industry accounts for more than half of the country's 40 million inhabitants.

Some edge was taken off the six-week election campaign by a government decree banning any criticism of the Israeli peace treaty, Egypt's strained relations with the Arab world and the nation's "socialist democracy."

The Socialist Labor Party, a leftist group led by former Agriculture Minister Ahmed Shukry, had 11 candidates. The party goes along with Mr. Sadat's foreign policy but criticizes the government freely on domestic affairs. It had 22 seats in the outgoing parliament.

The rightist Socialist Liberals, with only two seats in the old parliament, had 87 candidates. It was seeking to join the National Democratic Party in a coalition.

The most forceful opposition was made by the Nationalist Unionist Progressive Rally, a small pro-Soviet group that claims 150,000 members. It had two seats in the outgoing legislature and opposed the peace treaty with Israel.

Pentagon Aide Says Saudi Links Strong

By Norman Kempster

WASHINGTON, June 7 — Although relations between the United States and Saudi Arabia have been chilled by the U.S.-backed Israeli-Egyptian peace treaty, military cooperation between Washington and Riyadh has never been closer, a senior Pentagon official said yesterday.

The official scoffed at reports generated by Saudi sources that the kingdom was offended by proposals delivered by Secretary of Defense Harold Brown in February for a more active U.S. military role in the Gulf region.

"The security relationship is better than it has ever been," the official said. "We and the Saudis, of course, have our differences on some of the things that are going on in the area, but that is a completely separate issue."

On a related matter, the official, who asked not to be named, said that the United States is prepared to help Egypt build up its domestic arms industry. But this aid would stop far short of high technology items such as jet aircraft.

Saudi Arabia, Qatar and the United Arab Emirates recently pulled their money out of a three-year-old joint Arab arms industry located in Cairo to protest the treaty.

Some Saudi sources have also suggested that Mr. Brown came on much too strong in February when he offered to consult regularly with Riyadh on matters concerning the defense of the Arabian Peninsula. Published accounts have said the Saudis rejected proposals for the establishment of U.S. bases on Saudi territory.

The senior Pentagon official said the secretary of defense did not even suggest establishment of bases while he was in Riyadh.

"What we have been engaged in with the Saudis is discussion of the situation in the area," the official said. "They have substantial concerns about outside intervention and we have been able to offer them assurances of our unwillingness to let that happen, because we think it would affect our vital interests. They found that very reassuring. That has produced the best possible attitude on military relations."

Nevertheless, the official said, the Saudis may wish to put some distance between themselves and the United States in their public declarations of policy. He suggested that such statements were intended for consumption within the Arab world.

Potential Threats

"The Saudis are in an uncomfortable position," the official said. "They have these problems with security threats from outside the area. They also have problems with potential threats from more radical Arab states . . . They also want to preserve internal stability. And the United States is not necessarily their best associate with respect to all of these issues.

"They want to make sure that they are not seen as a U.S. client," he added. "They want to remain on good terms with everybody. And since that includes lots of countries that are not on good terms with each other, they have to play it carefully. And they do."

The United States is engaged in a similar diplomatic balancing act, attempting to maintain close relations with both Saudi Arabia and Egypt despite their differences over the peace treaty.

President Anwar Sadat announced Tuesday that Cairo was seeking permission to manufacture U.S.-designed weapons. Such an arrangement apparently would replace the joint Arab arms industry.

The U.S. official said that the Pentagon has discussed arms production plans with the Egyptians but "they [the plans] don't start at the high technology end."

"I think you start at a more modest level," he said. "We are not talking about co-production of high technology aircraft, for example, at this point."

Asked if the United States was prepared to replace Saudi Arabia, Qatar and the United Arab Emirates in financing the Egyptian arms industry, the official replied: "The joint arms industry wasn't all that much. I think that we have some equipment that is surplus to us that we would certainly consider making available to them."

Egypt's military forces are equipped mostly with aging Soviet weaponry. The United States has agreed to sell Cairo F-4 and F-5 jet aircraft and some other equipment, including several mothballed ships.

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Britain Planning to Give Oil Suppliers Freer Rein

LONDON, June 7 (AP-DJ) — The new Conservative government intends to revamp the nation's energy policy, especially in regard to the utilization of its North Sea oil, by reducing government involvement and allowing oil companies a freer rein.

"We aren't happy with the situation we have inherited," Energy Secretary David Howell said today.

His department is reviewing energy policy, including the operations of the state-owned British National Oil Corp., regulations governing private companies' operations to the North Sea, pricing of petroleum products sold in Britain and attitudes toward the future licensing of offshore exploration and production.

45% Is Exported

North Sea oil output is now running at an annual rate of about 75 million tons, or roughly three-quarters of the nation's consumption. However, Mr. Howell said, about 45 percent of that is exported, mainly under long-term contracts, and that BNOC, as the recipient of oil from government majority participation agreements with the companies, is a substantial exporter.

Mr. Howell urged British consumers to cut oil consumption by at least 5 percent but rejected the idea of official allocations of existing supplies.

"I believe," he said, "it would be wrong to saddle our country with an elaborate official system of government allocation of supplies." The oil companies were best suited to deal with fuel allocations, he said, ruling out the introduction of "massive bureaucratic meddling."

"By close collaboration between the Department of Energy and the oil suppliers, we should be able to adopt to the tight new situation. The department will continue to be ready to intervene with suppliers on specific problems of short supply and difficulty," the secretary said.

Christian Leader Doubts PLO Will Quit S. Lebanon

TEL AVIV, June 7 (UPI) — The leader of the Christian militias in southern Lebanon said today that the Palestine Liberation Organization was only bluffing when it announced yesterday that it would evacuate the Lebanese port of Tyre and stay out of Lebanese villages near the Israeli border.

"Their statement is only a bluff," Maj. Saad Haddad told reporters in the Israeli town of Metulla. "The Palestinians are merely moving their forces from place to place in southern Lebanon." He said the guerrillas shelled Christian villages yesterday in the six-mile-wide enclave that he controls north of the Israeli border.

Yesterday, Prime Minister Menachem Begin welcomed the PLO decision in a speech to a convention of his Herut Party.

"Fine, let them head north, as far north as possible," he said. "We don't want to hurt anybody, but we do want to insure the well-being of the Christians [in Lebanon] and the people of Israel."

The PLO said that it would move out of the areas to stop Israeli and Christian shelling of Lebanese towns and villages.

China to Favor Light Industry Over Steel Rise

PEKING, June 7 (Reuters) — China has decided to slow the growth of steel production and cut its capital construction program in line with the new economic re-adjustment policy, a senior Chinese official said today.

Sun Fang, a director of the China Council for the Promotion of International Trade, said the rate of growth of China's steel production from 23 million tons in 1977 to 31 million last year would not be maintained this year. While there will be an increase this year, the rate of growth will slow down as a result of more investment in light industry, he said.

He stressed that under the new economic plan, agriculture and light industry will be developed more quickly while some heavy industries will develop more slowly. Mr. Sun said the development of capital construction projects such as railways, roads, ports, new factories and mines, had been too numerous and their development too fast in the past two years.

Correction

A photo caption in yesterday's editions of the IHT incorrectly identified West Point cadet Bobbie Fiedler as a man, and misspelled her name as well. Cadet Fiedler is a woman. Her name is correctly spelled as Fiedler, not Fielder.

China, Vietnam to Resume Peace Talks This Month

(Continued from Page 1)

then the Vietnamese have replaced them with larger, though less experienced, forces.

Moreover, Hanoi has given no sign of tempering its drive to finish off the guerrilla war against the remaining Pol Pot forces in Cambodia. In mid-May, Nguyen Van Linh, a member of the Vietnamese Politburo and a national party secretary, suggested that it was Chinese aid to the Pol Pot forces that was keeping the Vietnamese in Cambodia. If that aid ended, he said, there would be "no reason for Vietnamese troops to stay to Cambodia."

A second Chinese objective in the border war, U.S. experts say, was to force the Vietnamese to act more cautiously along the Chinese border, where there had been a string of incidents before the Chinese invasion on Feb. 17. But these experts say that Vietnam has bolstered its border garrisons with regular troops, and China is still complaining of incidents.

A third Chinese objective is believed to have been to force Vietnam to reassess its pro-Soviet foreign policy, shift toward a neutral stance and adopt a friendlier attitude toward China. China is said to have hoped that by inflicting a defeat on Vietnam despite Moscow's aid, it would damage Soviet prestige in Asia.

Again, the experts say here, the opposite has happened. The Soviet presence in Vietnam has increased. Before the border war, Moscow had sent advisers to Vietnam to help train troops to the use of Soviet missiles and other modern weapons. More recently, Vietnam has permitted the Soviet Navy to use the former U.S. naval base at Cam Ranh Bay.

U.S. observers see the Chinese as having succeeded in one respect, raising doubts to Hanoi about Russia's willingness to intervene with force against China. The fact that the Soviet Union made no diversionary attack against China has left some U.S. officials convinced that the Vietnamese must now worry about the limits of Soviet willingness to go to their defense.

Schmidt Predicts Decade of Unrest In Energy Crisis

WASHINGTON, June 7 (AP) — West German Chancellor Helmut Schmidt predicted today that the 1980s will be a decade of unrest because of new forces emerging in a world that is increasingly interdependent economically.

Because of that, Mr. Schmidt called for as comprehensive a partnership for security as possible.

In a commencement address prepared for delivery at Harvard University and released in Washington, Mr. Schmidt said adequate energy supplies "are becoming an essential element in the preservation of peace and, thus, world security."

"A worldwide struggle for the distribution of decreasing energy supplies would produce serious tension and conflict among the countries," he said. "The poorer developing countries would be most seriously affected."

Mr. Schmidt is receiving an honorary doctorate at Harvard. The chancellor, who arrived in the United States Tuesday, met with President Carter and other administration officials yesterday.

Carter Expected to Retain Embargo Against Rhodesia

(Continued from Page 1)

legislation last year. If Mr. Carter determines that free and fair elections have been held, and have produced a government that has made a good faith effort to negotiate an end to the guerrilla war, then he is required to end the trade embargo.

Congressional sources said that they had reason to believe that the most intense part of the White House debate over the decision had been the setting of future conditions for the lifting of sanctions. "It boils down to how he says no," said one Senate source, "and whether he lists specific steps or retains complete flexibility."

Rep. Stephen Solarz, D-N.Y., chairman of the House subcommittee on Africa and the leader of House efforts to turn back earlier attempts to lift sanctions, welcomed the reported decision, which he said "has the ring of truth."

Saying that there was "a new situation in Zimbabwe Rhodesia as a result of the elections," Rep. Solarz maintained that "it would be a serious mistake to precipitously lift sanctions" before several key events, such as the Organization of African Unity summit in July and the Commonwealth meeting in August.

The decision by the new Conservative government in Britain to put off its own action on sanctions has encouraged a wait-and-see mood on Capitol Hill, Rep. Solarz said, adding that the president would have a reasonably good chance of beating back immediate congressional action to overturn his decision if the White House made Zimbabwe Rhodesia a high-priority issue.

Sanctions were enacted by Britain and the United Nations in 1965, when the white-settler government declared unilateral independence from British colonial rule.

Eanes Accepts Resignation of Lisbon Cabinet

LISBON, June 7 (UPI) — President Antonio Ramalho Eanes today accepted the resignation of Premier Carlos Mota Pinto's nonpartisan Cabinet, opening the way for expected early elections. A presidential spokesman said that the center-right Cabinet would continue as a caretaker government.

The spokesman did not say whether Gen. Eanes would try to form another government — which would be Portugal's 11th since the restoration of democracy in 1974 — or would dissolve parliament in preparation for a general election, which obersvers here think is more probable.

The aide said that the country's four sidelined political parties would be summoned to the presidential palace tomorrow for initial talks aimed at finding a solution for the country's growing political stalemate.

The premier presented his six-month-old Cabinet's resignation yesterday after parliament shredded his budget proposal and after the Socialists and Communists introduced censure motions that are expected to be approved next week.

West Germany Expels 2 Soviet Journalists

BONN, June 7 (Reuters) — The Soviet Embassy today accused West Germany of high-handedness in expelling two Soviet correspondents. The West German government announced yesterday that Yevgeni Bashmachnikov of Tass and Oleg Nikiforov of the daily Socialist Industry were being expelled because of traffic offenses.

Bonn took action a month after two West German television reporters had been expelled from the Soviet Union. The embassy said that West Germany "bears exclusive responsibility for its consequences" of yesterday's "arbitrary measure."

Bokassa Bans Youth Arrests

PARIS, June 7 (UPI) — Emperor Bokassa I of the Central African Empire, accused by news media and his own diplomats of having been involved in a massacre of schoolchildren in the capital, Bangui in April, has issued a decree banning violence against youth, reports reaching here said today.

The decree made it illegal to "arrest, detain or prosecute a member of the Central African youth in general and schoolchildren and students in particular."

In Paris, Ange Patasse, who served as Emperor Bokassa's premier until last year, announced the creation of a Central African Liberation Movement aimed at toppling the emperor's French-backed regime.

Vance, Waldheim to Meet

UNITED NATIONS, N.Y., June 7 (UPI) — Secretary of State Cyrus Vance will meet tomorrow with UN Secretary-General Kurt Waldheim for a wide-ranging exchange of views and possibly to discuss a meeting between Mr. Waldheim and President Carter, a UN spokesman said today.

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Cutbacks May Ease

U.S. Gasoline Inventories Increase Despite Holiday

By Anthony J. Parisi

NEW YORK, June 7 (NYT) — Despite the Memorial Day holiday and the surge in driving it traditionally brings, the oil industry's inventories of gasoline increased last week, according to statistics released yesterday by the American Petroleum Institute.

Industry officials said that the rise in stocks suggested that gasoline supplies might at last be loosening, and that the recent cutbacks in deliveries by the companies might soon be eased.

But the unusual increase — under normal conditions gasoline stocks generally drop each week at this time of year — is also likely to keep the industry open to renewed charges that it has been withholding supplies from consumers to raise prices.

The institute, an industry trade association, said that gasoline stocks climbed 4.8 million barrels last week and stood at 229.7 million barrels on June 1. A normal level for this time of year is about 215 million barrels, a spokesman said, while 223 million is considered the minimum.

Although industry officials cautioned against reading too much into a single week's statistics, they conceded that the current jump in inventories was startling.

"Surprised"

"To be honest, we were surprised they increased by 5 million barrels a day," said Edward Murphy, the institute's director of statistics. "About the only explanation I can think of is that the companies were making end-of-the-month cutbacks so they could start meeting their June allocations."

As Mr. Murphy saw it, the numbers simply showed that the industry underestimated by about 2 percent the amount of gasoline it could have available during May. That 2 percent then wound up in inventories.

"The problem," he said, "is that the companies can't be optimistic in their estimates. Once they go to an allocation number, they must deliver at least that much, or their dealers can take them to court."

Mr. Murphy estimated that, last month, the industry delivered 97 percent to 98 percent of the amount of gasoline supplied in the day of last year. Since demand would normally have grown since then, that implies a May shortfall of 4 or 5 percent.

If, however, motorists have been heeding the repeated requests to conserve fuel, the actual shortage may have been less. That, an API spokesman speculated, may have been another reason for last week's rise in inventories.

One company that did make a midcourse correction in May was Standard Oil of California, which started out with an allocation figure of 80 percent, but raised it to 82 percent west of the Rocky Mountains and 85 percent east of the Rockies. This month, the company's allocation number is 90 percent. Because these figures do not include certain additional deliveries required by the government, the actual amount of gasoline delivered to the marketplace is always higher than the allocation numbers suggest.

A Socal official expressed guarded optimism yesterday about last week's increase in the industry's total gasoline stocks.

"Houses of cards can be built on just one week of API data," said Kenneth Haley, Socal's chief economist. "But you have to call it good news. It could mean that the precipitous decline in gasoline inventories has been arrested. At least you can say allocations won't be cut more. As to whether they will be loosened, I'd like to see another week or two of results."

The institute's statistics also showed a rise in stocks of so-called middle distillates, which include home-heating oil and diesel fuel. Distillate inventories now stand at 125.5 million barrels, API said, slightly above the 123 million that it considers a minimum for this time of year. As in the case of gasoline, however, stocks remained well below the normal level of 150 million barrels.

Stocks of crude oil did drop as the industry started running its refineries at a faster pace, turning out the same amount of gasoline and heating oil as in the previous week but increasing output of other products. In recent weeks, critics have complained that, although refiners obviously have to stretch out their tight supplies, they appeared to be husbanding them a bit too much.

U.S. refineries ran at 86.2 percent of operating capacity last week, the institute said, versus 83.5 percent the week before and 90.1 percent during the last week of May 1978.

With crude oil imports still running slightly below normal — API said that the industry imported 5.8 million barrels a day last week, versus 6.3 million during the last week of May of last year — the stepped-up production at U.S. refineries caused crude oil stocks to decline from 326.8 million barrels to 322.7 million.

Although that is above the level of 316 million barrels considered the minimum for this time, it is well below the 350 million barrels considered normal.

United Press International

PEDAL POWER — Four Norristown, Pa., high school students demonstrate their solution to the energy crisis: a 4-wheel, 8-leg-power bike, which they built as a school project.

U.S. Truckers Protest Rising Fuel Costs

NEW YORK, June 7 (AP) — Three hundred trucks parked four abreast blocked a mile of an Indiana expressway today as independent truckers in several states stepped up protests against rising fuel costs.

Some truckers took their complaints to the source, using their big rigs to block pumps at filling stations, mainly in the West and Midwest.

At least one truck stop was blockaded on Interstate 70, in Denver, as the 210-member Colorado Association of Independent Truckers joined in a call for a nationwide stoppage.

The protest was causing concern among shippers such as Joe Oran, president of Scott Truck Line in Commerce City, Colo., who said that he could not find drivers for 10 truckloads of beef sitting in refrigerated trailers in his lot. He said each trailer contained $50,000 to $100,000 worth of meat.

Indiana State Trooper Dan Hiexenbangh said trucks began lining up on the expressway shortly after midnight at the Burns Harbor exit near Indiana's deep-water port on Lake Michigan and a Bethlehem Steel Corp. complex. Four hours later they were jammed four abreast a half mile in either direction from the exit, he said.

The truckers started pulling away before the morning rush hour of mill workers and port employees.

While some truckers predicted the protest would spread across the country today, leaders of the Independent Truckers Association were scheduled to meet with federal officials in Washington to discuss the diesel fuel shortage. The association has not sanctioned the action, which the dissident truck drivers are terming a wildcat strike.

Traffic Cut in Utah

In West Fargo, N.D., today, six trucks blocked a filling station and only one truck stop within 30 miles of the state capital of Bismarck was selling diesel fuel. The rest had shut down in sympathy with the truckers.

In Utah, truckers set up pickets last night at major truck stops.

Jim Shaw, president of the Utah chapter of the Independent Truckers Association, said the threatened stoppage had reduced truck traffic across the state during the last two days.

"There's guys sitting all around, and they aren't letting anybody fill any trucks," said Ken Williams, who was working early today at the High Forest Truck Stop in Rochester, Minn. Other stations around the state were also tied up.

Manager Mike Slifka said traffic through Truckers Inn, a stop in Sauk Center, Minn., was down to about 50 percent last night. He said traffic had been dwindling all week.

There were oo reports of violence in the protests.

"We are trying to do this peacefully. Nobody likes violence," Wayne Winston, a trucker from New Mexico, said yesterday at a protest site in Portland, Ore.

Mr. Shaw has said the Utah truckers will try "to be as oonviolent as possible," but he added that trouble could still break out. "You can't police everyone," he said.

Nevadans Vote Against Food Tax

RENO, Nev., June 7 (AP) — Nevada has voted to keep slashing taxes, overwhelmingly approving repeal of the state's 24-year-old sales tax on food. The repeal, voted Tuesday and to take effect July 1, was expected to save consumers an estimated $27 million a year, officials said.

Only food purchased at grocery stores for home preparation and consumption will be exempted from a tax of 3.5 percent. Items not included are alcoholic beverages, pet foods, tonics and vitamins and food intended for immediate consumption.

Last November, voters approved a measure which would reduce state property taxes by about 60 percent. It would also freeze assessments at 1975 levels unless a house or commercial property were sold. The matter has been challenged on constitutional grounds and will be put to a final vote in November of next year.

20,000 Killed Selves In Japan Last Year

TOKYO, June 7 (Reuters) — More than 20,000 Japanese committed suicide last year, police said today.

Sickness, loneliness, alcoholism, school problems and domestic troubles were blamed in the police report. It said 12,859 men and 7,929 women killed themselves.

Plea Bargain Is Blocked in Lance Probe

By Nicholas M. Horrock

WASHINGTON, June 7 (NYT) — Paul Curran, the special counsel investigating loans to President Carter's family business, said yesterday that he had blocked a plea bargain with a key witness in the Bert Lance banking conspiracy case to keep his investigatory options open.

Mr. Curran said that he had refused to approve a plea-bargaining arrangement between the Justice Department and William Green Jr., a close associate of Mr. Lance and an executive vice president of the National Bank of Georgia.

This is the first public instance in which there appeared to be competition between the objectives of the investigations into Mr. Lance, the former director of the Office of Management and Budget and adviser to President Carter, and into the Carter family business. But both government and private lawyers have speculated that there may be more situations where grants of immunity or plea bargains in one investigation could disrupt the pursuit of the other.

Declined Comment

According to sources, the lawyers prosecuting the 33-count indictment of Mr. Lance and three business associates in Atlanta had negotiated an arrangement in which Mr. Green would plead no contest to a misdemeanor charge and appear as a witness for the government in the Lance case.

Arthur Mathews, Mr. Green's attorney, has declined to comment on the matter and Mr. Green, in newspaper interviews, has denied any wrongdoing. Mr. Green was Mr. Lance's chief assistant when Mr. Lance ran the National Bank of Georgia in 1975 and 1976. The government has charged Mr. Lance with illegal transactions while he was heading the budget office. Mr. Green would presumably be asked to testify about some of these transactions.

It was during Mr. Lance's direction of the bank that it extended almost $7 million in peanut commodity and construction loans to President Carter's family peanut warehouse business. Mr. Curran was appointed as a special counsel on March 20 to investigate whether part of this money was illegally fed into the Carter presidential campaign.

Mr. Green has said on several occasions that he is not familiar with the details of the Carter loans.

Warning by Curran

Mr. Curran said that he had an understanding when he was appointed that the Lance prosecution team would do nothing "to affect my investigation without my approval."

He said he was made aware of the department's negotiations with Mr. Green and at first found them acceptable. But he added that later, because of a communication failure, he found language in the plea bargain unacceptable because "it clearly would have affected my investigation." He said that he told department lawyers of his objections and that the matter had been held in abeyance.

Mr. Curran warned against concluding from his action that Mr. Green was a target of his investigation or under suspicion. He said that the plea arrangement would have narrowed his investigatory options.

Other well-placed sources said that Mr. Curran had begun calling bank officials before a federal grand jury in Atlanta, and that Mr. Green is expected to be among those summoned.

From a legal standpoint, two federal investigations concerned with many of the same people can raise some difficult questions, government and private lawyers have said. For instance, if Mr. Curran came to believe that Mr. Lance possessed valuable information pertinent to his inquiry, could he negotiate with a suspect under indictment in another federal case?

Could Mr. Lance, facing 22 charges of conspiracy and bank regulation violations, voluntarily agree to go before Mr. Curran's grand jury and testify without fear that the answers to some questions might be used against him in his prosecution?

Yet it is clear that Mr. Lance might be a key witness in the Curran inquiry. Billy Carter, the president's brother, has said that he arranged the loans with Mr. Lance in 1975 and that he had discussions with Mr. Lance about other aspects of the transactions in the following two years.

Police in France Seize 5 of Breton Nationalist Unit

PARIS, June 7 (UPI) — Police announced today the arrest of five members of the clandestine Breton Liberation Army for a series of bomb attacks in Brittany.

The announcement was made 24 hours after police revealed the arrest of four members of the Corsican Liberation Front on charges of organizing a wave of bomb attacks in Paris.

Police said that the five members of the Breton group have admitted several bomb attacks, including one which destroyed the home of police commissioner Roger Le Taillanter, who is responsible for stopping the various Breton movements seeking autonomy or independence for the province.

Meanwhile, in Ajaccio, Corsica, two explosions damaged several buildings today. Police said that no one was hurt.

U.K. Names NATO Envoy

LONDON, June 7 (Reuters) — Sir Clive Rose, a senior career diplomat, will become Britain's ambassador to the NATO Council in Brussels this fall, the Foreign Office announced today. He will succeed Sir John Killick, who plans to retire.

Court Challenge of Nullification Possible

Senate Rebukes Carter on Taiwan Pact

WASHINGTON, June 7 (AP) — In a rebuke to President Carter, the Senate passed a resolution yesterday stating that its members must give their approval before the United States can terminate a mutual defense treaty with another country.

Critics of Mr. Carter asserted that the 59-35 vote, coupled with a federal court decision earlier yesterday, raised the possibility that Mr. Carter's decision last year to end a defense pact with Taiwan could be successfully challenged.

U.S. District Judge Oliver Gasch dismissed a suit by 23 current members of Congress and a former member seeking to stop the president's action. Judge Gasch said that the controversy was "not yet ripe" for a legal decision on whether Mr. Carter's action was constitutional — but that it would be if the Senate asserted its right to a voice in terminating treaties.

The Senate almost immediately obliged, and the quick action apparently caught the Senate's Democratic leaders off guard. They tried to soften the impact of the resolution, but an effort to exempt Mr. Carter's Taiwan decision collapsed after hours of debate. Supporters said that they would try again next week.

Politically Embarrassing

The sense-of-the-Senate resolution to reverse Mr. Carter's unilateral decision to end the Taiwan defense pact is not legally binding, but it is a politically embarrassing rebuke to Mr. Carter. Twenty-five Democrats joined 34 Republicans in approving the resolution, sponsored by Sen. Harry Byrd Jr., Ind-Va.

Supporters of the Byrd resolution said that it met the criteria set by Judge Gasch, who stated in his ruling that "the power to terminate treaties is a power shared by the political branches of the government, mainly the president and the Congress."

The judge said that he was dismissing the suit because the legislators did not have legal standing to sue the president "in the absence of a congressional action asserting a right" to share in the termination of the treaty.

Paul Kamenar, the lawyer who argued the Taiwan issue before Judge Gasch, said that he would ask him to reconsider his decision to dismiss the case, basing his request on the Senate's approval of the Byrd resolution. Sen. Barry Goldwater, R-Ariz., one of the plaintiffs io the suit, confirmed that the court would be asked to reconsider. "It is clear the judge agrees with me on the merits of the constitutional argument," Sen. Goldwater said.

Mr. Carter's announcement last December that the defense treaty with Taiwan would be terminated came as part of the U.S. decision to extend full diplomatic recognition to China.

Power 'Implied'

The Constitution requires ratification of treaties by a two-thirds vote of the Senate. It is silent on termination, but Sen. Byrd contended that the power to ratify implied equal power to approve nullification.

Sen. Frank Church, D-Idaho, chairman of the Senate Foreign Relations Committee, tried unsuccessfully to substitute less rigid language than the Byrd resolution. "You're reopening the full question of our future relations with Taiwan and mainland Asia," he warned the Senate.

The Senate Foreign Relations Committee presented a resolution that sought to set guidelines for the termination of treaties, spelling out cases for which Senate approval would be required, but also listing 14 circumstances in which a president would be justified to terminate a treaty on his own. These were to include cases involving "a fundamental change of circumstances."

Sen. Goldwater accused Mr. Carter of breaking the law and acting "like a dictator." He said that Mr. Carter, in acting unilaterally, had ignored a Senate resolution calling on him to seek Senate approval for ending the pact. "He thumbed his nose at us," Sen. Goldwater said. "The president broke the law . . . I swore to uphold the Constitution of the United States against all enemies — including the president, if he wants to be an enemy."

Russians Impose Big Fishing Fine On Japan Vessel

TOKYO, June 7 (AP) — A Soviet court has levied a record fine of $2,413,000 against a Japanese fishing boat for operating illegally in Soviet waters, the Hokkaido provincial government said today.

The ship, based on Hokkaido, Japan's northernmost main island, was seized by a Soviet patrol May 11 about 175 miles southeast of Vladivostok, the government said. It added that the court levied the penalty May 28.

The previous record fine imposed by the Russians on a Japanese fishing boat was in May, 1978 — $2,136,000 against another Hokkaido-based vessel.

Soviet Fishing Boat Seized

WELLINGTON, New Zealand, June 7 (UPI) — The navy seized a large Soviet fishing vessel today for using an illegal net in New Zealand territorial waters, diplomatic sources here said.

They reported that the ship was found using an illegal fine-mesh net instead of the government-approved wide-mesh kind. There was no immediate comment from the government.

N.Y. Daily News Back on Stands

NEW YORK, June 7 (AP) — The New York Daily News, the nation's largest-circulation daily newspaper, resumed publication today after photoengravers accepted a tentative three-year contract and ended a one-day strike.

Without waiting for a ratification vote, the union ordered its members back to work as soon as the settlement was announced yesterday.

The photoengravers, who make metal plates for printing pictures and advertising, walked out Tuesday after they were unable to resolve the issue of job security and work rules at the News' color printing plant in Queens.

31 Die in Malaysia Bus

KUCHING, Malaysia, June 7 (AP) — Thirty schoolchildren and a teacher trainee drowned today when their bus plunged into a lake outside Kuching, rescue officials said. They said 14 youngsters were missing. Twenty-three other persons, including the driver, survived.

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INTERNATIONAL
Herald Tribune
Published with The New York Times and The Washington Post
Page 4 Friday, June 8, 1979

The $5 Oil Subsidy

The affair of the $5 heating oil subsidy carries two stern lessons. First, it shows the dangers the Carter administration runs when it tries to resolve its domestic oil troubles without concern for the repercussions abroad. Second, it suggests that the industrial countries aren't going to have much luck holding down prices until — together — they find a way to hold down imports of oil.

* * *

This latest incideot began two weeks ago when the Department of Energy suddenly announced a subsidy of $5 a barrel on imported heating oil. The United States has been subsidizing imports of crude oil for years, to equalize the costs of imports with the cootrolled prices of the domestic supplies. But the $5 subsidy was especially inflammatory because it was a deliberate attempt to increase imports.

The U.S. import subsidies have always seemed to Europeans to be a costly attempt to postpone the real consequences of a worldwide oil crisis. But this subsidy was aimed specifically at the Europeans. The stocks of heating oil in the United States are just half the level that the Energy Department considers necessary for oext fall, and the departmeot is getting nervous. It defends the subsidy by arguing that the Europeans started the competitition by invading the Caribbean to buy heating oil that, in the usual pattern of trade, would routinely bave come to the United States.

The European reaction was immediate. Within one day, the price of heating oil on the European spot market had jumped more than $5 a barrel — wiping out any economic advantage conferred by the subsidy. The Common Market bitterly charged that this bidding war was driving oil prices out of sight for everyone. The subsidy "will transfer the problems of the United States market to the other markets of the world," it protested.

This week the French foreign minister, Jean Francois-Poncet, came to Washington to urge restraint on President Carter and call publicly for joint action to hold down oil prices. Then the chancellor of West Germany, Helmut Schmidt, arrived with a similar message.

* * *

The seven major industrial countries will meet in three weeks in Tokyo. The main question before them will be whether they are capable of taking action to limit oil imports. With U.S. leadership, much would be possible. But U.S. leadership is caught in endless confusion and conflict between the Carter administration and Congress. In the absence of policy, the economics of oil will be left once again to OPEC and the formidable price rises that it is now preparing.

THE WASHINGTON POST.

Italy's Communists: Ebb Tide?

There were oo real winners in the Italian election this week but there was a loser — the Communists. After the 1976 parliamentary election, the Communists seemed the wave of the future. Now it appears that the Red tide has begun to ebb. After the vote, as before, no party or likely coalitioo of parties has a solid majority in Parliament and instability is likely to continue.

The Communist Party remains the oumber two political force. It accounts for 30 percent of the popular vote. The Communists also lead the largest trade union confederation, domioate seveo of Italy's 20 regions and cootrol the governments of nearly every major city. But in their drive for respectability they confused their own militants and lost support on the left.

The party had cooperated in Parliament with the center-right Christian Democrats and sought cabinet posts in a coalitioo government. But it failed to achieve that objective. To cut its losses, the party then withdrew support from the Christian Democratic government, forcing early elections. Despite that maneuver, the Communists lost ooe voter out of nine and ooe seat out of nine in the 630-seat Chamber of Deputies.

The Christian Democrats' vote stayed about the same, 38 percent; they are still 54 seats short of a majority. With inflatioo and unemployment rising again, some Christian Democrats want to renew their parliamentary coalition with the Communists as well as with the center parties. But such an arrangement may not be possible. Communist leader Enrico Berlinguer has been weakened by the election. He will have trouble overriding his party's left wing, which demands cabinet participatioo or a return to vigorous opposition, and rejects compromise.

* * *

Another alliance the Christian Democrats might have made — with the third-place Socialists — doesn't look as likely, oow that the votes are in. The voters who deserted the Communists did oot go to the Socialists. They scattered their power instead among a half-dozen splinter parties of the left and center.

Still, apart from the Communists with their 201 seats, only the Socialists — with 62 seats — can provide the margin the Christian Democrats need to continue in office. The Socialist leader, Bettino Craxi, favors such a course, hut his failure to gain much ground in the election has weakened his position.

* * *

He could oevertheless turn out to be the key to a oew coalition. For together, the Christian Democrats and the Socialists alone, hold a small majority of seats in both houses of Parliament. Together with the small Social Democratic and Republican parties, their traditional allies, they would have 360 deputies to 270 for the Communists and all other parties combined. It could be a delicate coalition, but there is a logic in the arithmetic that oo one in Italy is likely to ignore.

THE NEW YORK TIMES.

Other U.S. Opinion

Gas in the Consumer Society

Americans use too much gasoline. That is the sole reason for tbe gas shortage in the United States. There is more than enough gasoline for our needs. But we do not burn what gas we need. We use it for unnecessary driving, for recreation and for comfort. We also use more fuel oil than we need and more natural gas.

For at least 35 years we have bad dinned into our beads the message that we must consume. We are a consumer society. Consumption is the key to U.S. economic growth.

Just one example: Widespread automobile air conditioning is a post-Koreao War development. Today the big-car rental agencies rent only air conditioned cars. The cars used by government officials are not only air conditioned . . . government drivers leave the engines running so that in the summer the officials will be able to enjoy a cool ride and in winter a warm one as they travel to or from overheated or overcooled government offices . . . Americans want to do their consuming quickly. Nonperishables are transferred from source to user as rapidly, not as inexpensively, as possible. Large vans carrying a few small packages make repeated delivery trips. Trucks carry loads which could be moved by train. Trains carry freight which could be moved by barge or boat . . . The more fuel-consuming method of transport is chosen because it saves time . . .

Other than the habit of conspicuous consumption, which is daily drilled into us, is there any reason we cannot take more time, wait a little longer for delivery, accept wider variations in temperature and be more frugal in our use of heat, light, energy and transportation?

— From the Democrat (Sherman, Texas).

Thrift and Inflation

If Ben Franklin were alive today, he would probably place his money in California housing, mutual funds, and perhaps even an ingot or two of silver or gold. It is doubtful that he would any longer accept his own renowned advice that "a penny saved is a penny earned," unless, of course, he could afford a $10,000 certificate of deposit — an instrument of saving inaccessible to most cash-short Americans.

The public no longer follows the "penny saved, penny earned" axiom for the simple reason that a decade of high inflation rates has eliminated most incentives for savings. Americans are socking away an increasingly marginal portion of national iocomes and buying more and more on credit.

fn response to this situation, the Federal Home Loan Bank Board this week allowed a one-quarter percent increase in the rates of interest paid by savings and loan institutions. The move was in the right direction but not large enough to purge the underlying aversion to thrift within an economy too used to feeding on inflation.

— From the Pittsburgh Post-Gazette.

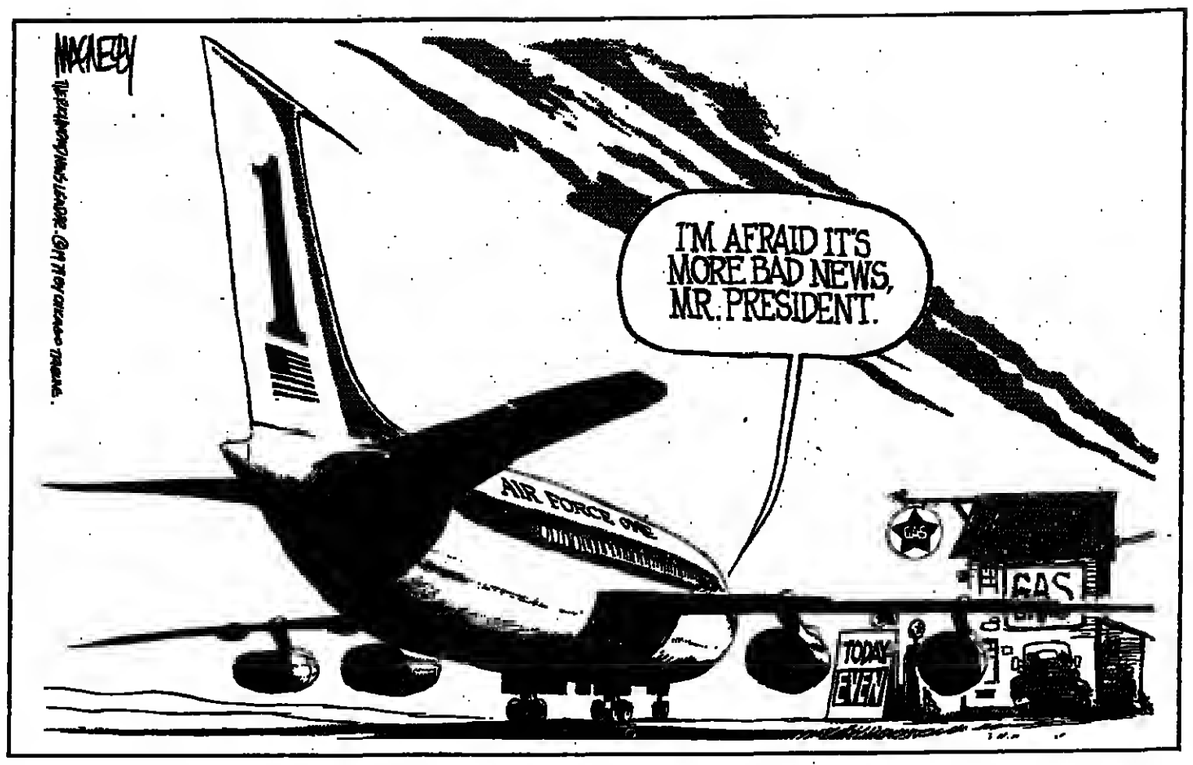
In the International Edition

Seventy-Five Years Ago
June 8, 1904

ST. LOUIS — The great bullfight which was to have taken place outside the Exposition grounds here yesterday ended in riots and disaster. It was the first bullfight in the United States, and matadors and bulls had been imported at great expense. Police came and canceled the event, but only after the tickets had been sold, and the promoter refused to repay the purchasers. The crowd became enraged, stoned the police, hurned the arena and freed the bulls. The Spanish bullfighters fled, but the wife ol one of them boldy faced the irate mob, and they, liking her courage, cheered her.

Fifty Years Ago
June 8, 1929

LONDON — Prime Minister Ramsey Macdonald tonight announced the personnel of his second Labor government. The list contains few surprises, and tncludes as Chancellor of the Exchequer Phillip Snowden, who holds world status as an authority on finance. Mr. Macdonald has avoided identifying himself in any way with his party's left wing. The importance attached by Mr. Macdonald to the forthcoming review of Indian self-government is indicated by his delegating one of the ablest of the Labor Party's recruits from Liberalism, Capt. Wedgwood Benn, as Indian Secretary.



Games Played in the World Oil Market

By Daniel Yergin

PARIS — Two games are currently being played in the international oil market. One is called "leapfrog" and it is the sport of the oil producers. It is a friendly game. No one loses. All end up richer. The other game is called "scramble." Its players are the industrial countries. It is a rougher game, a contact sport, which is starting to get painful and could get brutal. And no one gets richer.

Judging by the state of play in both arenas, the two games could go on all summer and into the autumn. In other words, there is no compelling reason to expect oil prices to cease rising in the near future.

The leapfrog was set in motion last winter by the upheaval in Iran, which temporarily removed 5 million barrels a day from the world market. The critical period was in March, when the drawdown in oil stocks began to be felt. Iranian production was coming back, but not to its old levels, while other producers were cutting back. That was the point when the industrial nations could have taken measures to reduce oil demand by 10 percent, thus grounding the leapfrog before it could really bave taken off. Instead they agreed on a weak 5 percent reduction, which they have failed to achieve.

Tight Market

At the end of March, the OPEC countries began to take advantage of the tight market in a major way. Prices in the normally small spot market, whicb balances supply and demand, had already begun to skyrocket. (Recent spot prices have been reported that are three times what oil was officially priced at six months ago.) By March, OPEC countries were beginning to invoke clauses in their contracts that allowed them to switch oil from long term contract to the spot market. One producing country informed a major company that *force majeure* would prevent the delivery of contracted oil. Hours later, the country was able to inform the company that exactly the same amount of oil just happened to be available at spot prices.

At the same time, the OPEC countries wanted to capture some of the spot value in their official prices. And, especially after the OPEC meeting at the end of March, they began their game of leapfrog — one producer after another adding surcharge to surcharge. The result is that long-term contract prices today are more than 30 percent higher than they were at the beginning of the year. While the spot market increases are more dramatic, these surcharges apply to a lot more oil.

Only three things are likely to bring a halt to this game of leapfrog. The most likely is the sharp recession that could be induced by the price hikes. Demand for oil would be reduced by the decline in economic activity, taking pressure off the market, and so putting a cap on the ability of producers to force up prices. Of course, all this would occur at the cost of millions unemployed, many bankruptcies and a good deal of political instability with the industrial countries.

Reduce Demand

Second, the Western countries could use skillful conservation policies to reduce demand and take pressure off the market, and so bring the leapfrog to an end.

Third, the Saudis could decide to activate their dormant role as swing producer, increase production beyond the extra 500,000 barrels a day they have promised, or at least imply that they will do so, and thus enforce a ceiling on price — either before or after the June 26 OPEC meeting in Geneva.

This time around, however, the Saudis seem to prefer a passive role, for they are all too conscious of the pressures on them from many directions. There is an apparent split in the ruling family. The Saudis are nervous about radicals and fundamentalists in their midst or near their borders. No matter what they said about him in the past, they miss the shah's security blanket. They are not so confident of U.S. security guarantees, and they do not like the Egyptian-Israeli peace. On the other hand, their security does lie with the West, particularly the United States, as does the well-being of their investments and markets. Moreover, it could prove very costly to them in their relations with the United States if they are seen as the people who undermined Camp David.

In such circumstances, it is best to be passive, increase production a little, but also follow the price hawks and let the market do its will.

Scramble

Thus the scramble among the industrial nations. The U.S. $5 subsidy for product imports has inflammed relations with the other Western countries to a degree neither acknowledged nor even imagined in Washington.

ft fulfills all the worst fears about how, when the chips are down, the United States — the consumer of a third of all the oil used in the world every day — will crowd out the market. The controversy is also a perfect example of bow, in times of tight supply, governments will respond only to short-term domestic political pressures, generally making the whole situation worse in the longer term. For there can be no doubt that the U.S. action has given a healthy boost to the leapfrog.

Earlier this year, the U.S. government, as well as the companies scheduling their refinery runs, faced what they saw as — to put it bluntly — a ehoice between gas lines in the summer and people freezing to death in the winter. There is only so much oil. It was generally thought that lines at gasoline stations were preferable — until the three-hour lines hit California. The most populous state went into a collective rage. (This writer, visiting California at that time, noticed a small but visible example of how the energy problem really threatens economie well-being. Streets emptied, business was off, down went advertising, and the normally fat Wednesday Los Angeles Times appeared to shrink to half the size).

Complications

With the gas lines spreading first in California and now across the United States, finger-pointing has taken over. There have been endless irrelevant diatribes against decontrol and the villainy of the oil companies by politicians and publics who can't see beyond the U.S. coastline — from beyond which, unfortunately, half of the U.S. oil comes.

Further complicating matters, the gas lines happened to be in California whose governor is Jerry Brown, who happens to be a most likely challenger to Jimmy Carter in 1980, and Brown's finger pointed immediately in the direction of Washington. Forget the fact that gasoline consumption had increased by about 13 percent in California between 1977 and 1979.

There had to be an option other than gas lines and people's freezing to death. That option, of course, was to buy more oil in the world market. In the winter, the U.S. Department of Energy had rightly pressured U.S. companies not to go out and bid up the price of oil on the world market. Recently, in response to the domestie pressures, it reversed itself, and told the companies to go out and buy the oil at any price, irrespective of the effect on oil prices and the balance of payments.

Such is the almost inevitable response of any Western government in such difficulties. The difference is that the United States has mucb greater wherewithal and cuts a larger path in the scramble.

France, whose foreign minister has been complaining this week at the White House, is fair in its criticisms of the $5 subsidy. Moreover, it has had since 1974 a more effective energy conservation program than just about any other Western country. However, its case would be much better had it not refused because of its Gaullist legacy to join the International Energy Agency, which is the energy forum of the industrial countries that was created exactly to help head-off scrambles.

Thus, France is not exactly in a strong position either to influence U.S. policy or call for cooperation. Perhaps Washington and Paris could swap the $5 subsidy for French membership in the IEA.

With the balance so tight, it is hard to see any near end either to the leapfrog or the scramble. Of course the situaton could still get worse, much worse. The balance of supply is so narrow that all we need is another "accident", say a Nigerian cutback to protest Western policy on Rhodesia or another interruption of Iranian supply because of a conflict in the oil fields or a heart murmur in the ayatollah. If such an accident happened, we could say good-bye to the price of oil.

As it is, time has been cruelly telescoped. The energy crisis of 1985 is here in 1979. Can it be contained? That would require more sensible conservation policies and a good deal more intelligence and sensitivity among Western countries — and a good deal less paranoid fantasizing. And all that is a lot to hope for. A sporting man would bet beavily on a recession.

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Daniel Yergin is co-author of "Energy Future: Report of the Energy Project at the Harvard Business School," which will be published next month. He wrote this article for the International Herald Tribune.

The Crisis of Zionism

By Anthony Lewis

WASHINGTON — Political acts sometimes send devastating symbolie messages. So it was when the Israeli Cabinet this week approved a plan by the Gush Emunim, the Jewish zealots who say they have a right to settle anywhere in the Biblical Land of Israel, to build a settlement near Nablus in the West Bank.

Nablus is a town intense in its Arab feeling, a center of Palestinian nationalism. The new settlement is to be built four miles away, on land confiscated by Israel's occupation authorities from private Arab owners.

Israel justifies some settlements on security grounds; it argues, for example, that those in the Jordan Valley should remain as outposts under a final peace arrangement. But the argument does not apply to this case. A settlement built on confiscated Arab land in an intensely Arab area would never be acceptable to any Arab authority. It could exist only as long as it had Israeli military protection.

The Message

The political implications are plain. When Prime Minister Begin and his colleagues approve such a settlement and say they will never abandon it in a negotiation, as they do say, they are effectively asserting a right to permanent military control of the area. They are sending the message that Israel intends to continue the occupation of the West Bank, in one guise or another, indefinitely.

That position cannot be reconciled with the undertakings Begin gave at Camp David. He accepted there, as the basis for peace, UN Resolution 242, which calls on Israel to withdraw from occupied territory. No interpretation of 242, no border adjustment would conceivably allow Israeli forces to continue their operation of such a populous Arab center as the Nablus area.

Begin knew that his two partners at Camp David, Anwar Sadat and Jimmy Carter, would regard approval of this settlement as a deeply provocative act. The decision thus represented something more in political terms. It was an expression of disregard, of contempt for their position in the Middle East peace process.

The Israeli government evidently believes that Sadat has finally cut himself off from the Arab world and has nowhere to go except the planned relationship with Israel. Accordingly, his nose can be tweaked with impunity — even as negotiations for "autonomy" on the West Bank get underway.

Carter Mocked?

As for President Carter, Begin must read his political position as so weak that he can be mocked without threatening Israel's vital U.S. connection. The White House can criticize the settlement decision as "an impediment to peace," that is, and no one will care.

But the real challenge of this settlement is not to Sadat or to Carter or even to the peace process. It is to the character of Israel.

What the episode says is that the government of Israel wants to excercise sovereignty on the West Bank without democratie responsibility. It wants to control the lives of the inhabitants without giving them a voice. It wants to have the fruits of annexing the territory without paying the price: incorporting 1 million Arabs in Israel.

To do all that Israel must govern the territory indefinitely by force of arms: a policy that Moshe Dayan not long ago described as lunatic. It must allow its policy to be shaped by the Gush Emunim and other fringe bands. It must harden its heart so much that it can close the West Bank's leading university, Bir Zeit, on "security" charges that would not satisfy the rulers of South Africa.

Is this the Israel for which thousands gave their lives over the last 30 years? Is this what Theodore Herzl dreamed?

Many Israelis do not think so, and their hearts cry out at what is happening to their country. This week a highly-respected journalist, Meir Merhav of the Jerusalem Post, wrote about how it felt to watch a television report on Jewish activist settlers invading Arab homes in Hebron.

"It does no good," he wrote, "to pretend that the cowardly raid was an isolated 'incident.' We are rapidly descending, rung by rung, the ladder of evil The settlements, intended to create 'permanent facts on the ground,' breed enduring hatred. They tie the occupying power's own hands vis-a-vis the settlers."

The violence is attributed to the Gush Emunim or the Jewish Defense League or some other zealots, Merhav said, but the way is paved by politicians who talk of the Bible as the basis for sovereignty in the 20th century. To overlook the violent results, he said, would "disgrace Israel as a state and every one of us individually."

ft is not just Carter who should worry about that settlement. It is all the friends of Israel. They should be meeting and talking and thinking to themselves about what is happening to the dream.

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—Letters—

View of Lance

William Safire's article on Bert Lance (IHT, May 29) seemed to have missed one point.

Mr. Lance is not being accused of running a Ponzi scheme, but rather that he started to do so before he joined the administration. I suppose his proven ability to juggle the books was one of his qualifications, but he should have known that Ponzi schemes are a government monopoly.

JAY KAHN.

Amsterdam.

Hard Case: On Keeping Schlesinger

By Joseph Kraft

WASHINGTON — President Ford fired James Schlesinger as secretary of defense back in November, 1975. fn consequence, Mr. Ford failed to get an arms control treaty with the Soviet Union — a failure which, indirectly at least, cost him the 1976 election.

Though circumstances are different, President Carter understands the lesson of that episode. He will not fire Mr. Schlesinger as secretary of energy — despite tremendous pressure — because he knows that the beat would then go on to Jimmy Carter.

In the first case, Schlesinger was dumped just as Henry Kissinger was bringing to a head years of negotiation for a second-stage strategic arms limitation treaty (SALT-2). Schlesinger, after having been suspicious of the Kissinger approach, had swung behind the secretary of state. The expectation was that together they would be able to push SALT by the Senate before the 1976 election.

But Donald Rumsfeld — who seems to have engineered the Schlesinger firing and who replaced him at the Pentagon — was, and remains, hostile to SALT-2. He successfully fought the arms control negotiation through 1976. As a result Ford went into the primaries and election that year without a specific issue on which to define his stance toward the Soviet Union.

Ronald Reagan in the primaries and Jimmy Carter in the general election both enjoyed the luxury of being able to hit out at Ford with the loose charge that he was soft on the Russians. So the firing of Schlesinger made at least a major contribution to Ford's loss in the election.

In the present case, Schlesinger is plainly absorbing punishment that would otherwise go to the president himself. For at every turn, mistakes now being charged against Schlesinger were mistakes made by Carter.

First there was the energy program served up by the administration in the spring of 1977. One clear deficiency was that it emphasized conservation too much and production not enough.

Why? Well, in large part because Carter insisted that the plan be produced within 90 days. That forced Schlesinger to rely heavily on the experts who had been working on energy for the Democratic Congress. Those experts — wbo had opposed the Ford program which emphasized production — inevitably tilted toward conservation.

A second mistake came in dealing with the Senate. Chairman Russell Long of the Finance Committee was not won over to the Carter plan — mainly because it did not stress production incentives enough. But wbo dealt with Senator Long?

Mr. Carter, of course. The president's massaging of the senator included two family dinners at the White House. But to this day the rapport between the two men is imperfect. The senator, who happens to believe Schlesinger has done a good job, still opposes the president's energy program.

Then came the Iranian crisis which led to the current shortage. Almost alone in the administration Schlesinger sensed the truly harmful consequences for the United States and its allies that would follow the ouster of the shah. He worked consistently behind the scenes to try to support Iranian forces friendly to this country.

When the shah fell and the Iranian army dissolved, Schlesinger rightly forecast the difficulties which developed. At that time the president and secretary of state were assuring the country everything would be alright.

Finally, there is the present confusion. Schlesinger has favored the decontrol of oil prices, primarily so that consumers would learn to pay the true replacement price of gasoline.

Carter has affected to back the objective. But he compromised the position by blaming the oil companies for a ripoff, thus confirming consumer suspicions of the companies. He then completed the circle of possible positions by complaining that the country was too suspicious.

But Carter does not have available the wealth of talent that would make it easy to spare Schlesinger. To his credit, the president has no taste for making scapegoats of the innocent. Especially when he knows, as be has been saying privately, that if Schlesinger went, the next victim would be Carter.

So he is not going to dump Schlesinger, and there remains only an intriguing question. Which is what it profits the president to allow persons close to him to give the impression that the secretary of energy is on his way out.

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Cool Volcanoes, Blue Snow

Major Moons of Jupiter: Worlds Unto Themselves

By John Noble Wilford

NEW YORK, June 7 (NYT) — Blue snow, volcanoes that appear to erupt at a cool 80 degrees Fahrenheit — these are some of the surprises that have greeted scientists studying new photographs and data on Jupiter's four largest moons.

Three months after the epic rendezvous by the U.S. spacecraft Voyager with the solar system's largest planet, scientists have concluded that they have never seen anything else under the sun to compare to the major Jovian moons — Io, Europa, Ganymede and Callisto. Each turns out to be a distinct world and a source of continuing surprise.

Reflecting the excitement of such discovery, the Voyager photographic interpretation team, led by Dr. Bradford Smith of the University of Arizona, reported in the June 1 issue of Science magazine:

"The bodies in the Jupiter system . . . do not resemble closely either the planets in the inner solar system or one another . . . The sense of novelty would probably not have been greater had we explored a different solar system."

Before Voyager-1 cruised through the environs of Jupiter last March, the four largest of the 13 known Jovian moons had been little more than vague points of light in the sky. The report in Science and discussions by planetary specialists at the spring meeting of the American Geophysical Union in Washington last week provide startling close-ups:

80-Degree Volcanoes

● According to Voyager's infrared measurements, Io's numerous volcanoes — the only active craters seen anywhere except on Earth, and Voyager's most spectacular discovery yet — are as cool as a spring day, although decidedly warmer than the surrounding terrain. Most of Io's surface is about 235 degrees below zero Fahrenheit. One of the volcanic plumes showed a temperature of about 80 degrees above zero. If the volcanoes were erupting molten sulfur, as has been speculated, the temperatures should have been about 230 degrees above zero. Dr. Smith and his team said a that likely explanation for Io's violent volcanoes is tidal heating generated in Io's interior by the competing gravitational forces of Jupiter, in one direction, and Europa and Ganymede, in others.

● Another phenomenon found primarily in the polar regions is "blue snow." Photographs of Io disclosed 30 to 40 wisps of blue material, probably venting gases that condensed into snow.

● Europa — Long linear structures criss-cross the surface. Some appear more than 100 miles wide and 1,000 miles long. Geologists say the lines resemble faults and "are strongly suggestive" of global-scale processes that are moving and shaking Europa's crust.

● Ganymede — The largest of Jupiter's moons, Ganymede lacks major relief. All the craters are unusually shallow, which may be a consequence of the relatively weak nature of a crust of ice and rock.

● Callisto — The most impressive feature on Callisto is an enormous, multiring meteorite impact basin with a central, circular patch of light-colored material about 180 miles wide. Radiating out from it are at least 8 to 10 bright discontinuous ridges more or less equally spaced, extending about 850 miles. The ridges do not appear to be very high.

"The flatness and unusual ring spacing," Science said, "are presumably due to the difference in material properties between an ice-rich crust and the silicate crusts of the moon and Mercury." It said that viscous flow during or after impact probably smoothed out the topography.

Early next month, Voyager-2, an identical spacecraft, will fly by the moons in such a way as to obtain high-resolution photographs of the hemispheres not surveyed by Voyager-1. Voyager-2's mission has been modified to take 10 hours of time-lapse photography of the volcanoes of Io.

India State Opposes Ban On Slaughtering Cattle

By Robert Trumbull

TRIVANDRUM, India, June 7 (NYT) — The tropical state of Kerala along the fabled Malabar Coast, where King Solomon's sailors are said to have come for "ivory, apes and peacocks," is engaged in a bitter battle with the central government over a proposed national ban on killing cows, which are sacred to orthodox Hindus.

Kerala, which has India's highest literacy rate and population density, is underdeveloped and has high unemployment. It also has large minorities of meat-eating Christians, Moslems and Jews. The state's growing beef industry takes priority over what its Hindu chief minister calls "religious sentiment."

Mention of the bill to make killing cows a national offense, which is now before the Indian Parliament, raises the ire even of many high-caste Brahman Hindus in Kerala, including Vasudevan Nair, the chief minister, who openly condemns the national cow-protection program. Mr. Nair said that passage of the bill would be "very absurd." He declared: "We will not ask our people to change their food habits in order to respect the religious sentiments of certain sections."

The Hindu aversion to eating the flesh of the cow applies in Kerala only to "the very orthodox and the very old," said P.M. Abraham, the state commissioner for agricultural production. He said that 70 percent of the state's 23 million persons, of whom more than half are Hindus, were meat-eaters for whom beef was a major item in their regular diet.

Headed by Hindus

Mr. Nair said that 21 percent of Keralans were Christian, a religion said to have been brought here by the Apostle Thomas in the year 50, while 19 percent were Moslems, many descended from early Arab traders who called here. There are a substantial community of Jews and a sizable tribal population, also meat-eaters.

Most of the hundreds of small slaughterhouses in Kerala are operated by municipal governments headed by Hindus, said P.C. John, a Christian and the managing director of the state-owned meat processing company, Agro Products Corp. The head of the company's meat-packing subsidiary, Meat Products of India, V. Krishnamurthy, is a Brahman, the highest Hindu caste, and does not eat meat, although he sells it, Mr. John said.

The meat company's head office, in a rundown, walled-in palace once owned by the maharajah of Travancore, is in a Brahman enclave around the ancient Padmanabha Temple, one of the city's tourist sights, where the maharajah prayed daily before an 18-foot reclining statue of the Hindu god Vishnu.

The cow population of India is at least 200 million head, by conservative estimate. Millions of the animals are aged and decrepit, and have been turned loose by their owners to wander at large, scavenging and destroying crops. Harming one has been known to provoke an inter-religious riot when the offender was a Moslem.

Enterprising Indians in the large neighboring state of Tamil Nadu, where the cow is protected, buy unwanted animals and round up strays, then drive them across the border into Kerala on foot for sale to meat dealers. Mr. Abraham estimated this trade to be worth about $5 million a year. A bill to prohibit interstate movement of cattle has been introduced in the Tamil Nadu legislature with the backing of powerful orthodox Hindu groups.

Afghan Exiles Report Clashes

TEHRAN, June 7 (Reuters) — An Afghan exile group based in Iran today reported heavy fighting between government forces and Moslem guerrillas in the western Afghanistan city of Herat.

The Islamic Cultural Society of Afghanistan, quoting reports reaching Tehran, said a trailer carrying two tanks to reinforce government forces in Herat had been attacked and destroyed this week.

It said the guerrillas, who seek the overthrow of Soviet-backed government, had also attacked an army truck outside Herat, killed 13 soldiers.

Swedish Aide to Hungary

STOCKHOLM, June 7 (UPI) — Swedish Foreign Minister Hans Blix will begin a four-day visit to Hungary on Monday, the Foreign Ministry said today.

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Jack Haley in front of a poster of himself as the Tin Woodman.

Obituary

Jack Haley, Tin Woodman In 'Wizard of Oz,' Is Dead

NEW YORK, June 7 (NYT) — Jack Haley, 79, the mellow stage and screen comedian of the 1930s and 40s who played the Tin Woodman in the movie "The Wizard of Oz," died yesterday in Los Angeles following a heart attack.

In the 1939 Metro-Goldwyn-Mayer film, which has been rerun many times on television, Mr. Haley played a strange, lovable character in a child's fantasy world that charmed audiences of all ages.

He wore a metal funnel atop his head, and his head stuck out of an outlandish metal costume. His blue Irish eyes peered painfully down on the little-girl heroine, Dorothy, played by Judy Garland in pigtails and a starchy frock.

The Tin Woodman was unhappy: Because he didn't have a heart, he couldn't have emotions. But he finally got a heart, a big, red fancy one with a ticking mechanism, from the Wizard — and finally he managed to cry, so tearfully that Miss Garland feared he would rust.

"Now I know I have a heart," he sobbed.

The Tin Woodman was one of several fantastic characters that Dorothy met in her wanderings in the movie. The others were the Scarecrow, played by Ray Bolger, and the Cowardly Lion, played by Bert Lahr, who died in 1967.

"The Wizard" was by far the greatest success of the 50 movies in which Mr. Haley appeared. He retired from acting after World War II, and went into California real estate, which made him a millionaire. He was married for 52 years to Florence McFadden, a former Ziegfeld Follies dancer. Their son Jack is president of 20th Century-Fox Television Productions.

John Joseph Haley began charming audiences as a 6-year-old singer in a church festival in Boston, where he was born to John Haley, a ship's navigator, and Ellen Curley Haley.

After graduating from high school, he followed his parents' wishes and began learning to be an electrician, but after saving some of his earnings as an apprentice electrician, he ran away from home.

He began in professional show business as a song-plugger in Philadelphia, and then turned to song-comedy routines in vaudeville. He began getting Broadway roles in the 1920s — notably in the flimsy 1929 musical "Follow Thru," which was about golf.

In the years that followed, his bright blue eyes, wavy hair and inexhaustible good humor made him sought-after to fill some of the many light comic roles provided by musical comedies then on Broadway.

Starred With Merman

In 1932 he starred with Ethel Merman in the deliriously forgettable musical comedy "Take a Chance."

"Fast, loud and funny," Times critic Brooks Atkinson reported cheerfully to his Depression-era readers. "Jack Haley has never teetered along quite so many lunar rainbows as he does here. . .Pay no heed to the plot."

Mr. Haley first starred in Hollywood with the 1930 movie version of "Follow Thru," and he appeared in Miss Garland's first full-length movie, "Pigskin Parade," in 1936.

On the screen as on the stage, his good-natured drollery made him widely liked, although not revered. In 1940, Mr. Atkinson wrote affectionately, "There are many things wrong with show business, and with the whole world, as far as that goes, but Jack Haley is not one of them. Haley has a lot of friends who admire his talent for skylarking."

In his later years, Mr. Haley made occasional returns to movie and television screens. He appeared in "Norwood," a 1972 movie directed by his son; his last public appearance was April 9 during the Academy Award presentations — a telecast produced by his son. The elder Haley joined with Mr. Bolger to present one of the Oscars.

In addition to his real estate business, Mr. Haley was active in charity organizations and in the American Guild of Variety Artists, which he once headed.

— ERIC PACE

Ghana's Rulers Ask Bureaucrats To Resume Posts

ACCRA, Ghana, June 7 (Reuters) — Civilian ministers of the ousted government of Lt. Gen. Frederick Akuffo, who was overthrown in a military revolt this week, have been asked by the new regime to return to their jobs, the Ghanaian news agency said today.

But it said that all military members of the former regime would remain in custody. Ministers and general-secretaries were detained after Monday's coup by a revolutionary group of low-ranking soldiers headed by Lt. Jerry Rawlings.

Most members of the former ruling Supreme Military Council and many ministers are officers in the armed forces. The agency said that ministerial general-secretaries, the senior permanent civil servants, were back at their posts after being detained.

A curfew imposed Tuesday was lifted yesterday, the agency said. Troops were being withdrawn from the streets, and shops and offices were open as life was returning to normal in Accra, it added.

The agency said that the new Armed Forces Revolutionary Council now ruling Ghana had given the business community 24 hours to reduce food and commodity prices to officially approved levels.

Prague Dissident Said Beaten Up

VIENNA, June 7 (UPI) — A leading member of the Charter 77 human rights movement in Czechoslovakia was hospitalized in Prague with brain concussions after being attacked by unknown persons, dissident sources said today.

The sources said Dena Tominova, a Charter 77 spokeswoman, was beaten up Tuesday night by men wearing masks as she entered her house.

Two other Charter 77 leaders have been attacked in recent years in Prague. Former Foreign Minister Jiri Hajek was beaten up in 1977 and Ladislav Hejdanek in 1978.

Lee on Tour of Europe

SINGAPORE, June 7 (Reuters) — Prime Minister Lee Kuan Yew will leave tomorrow for West Europe to confer with the leaders of West Germany, Belgium, Luxembourg and Britain.

Forssmann Dies; German Surgeon Won Nobel Prize

HAMBURG, June 7 (AP) — Werner Forssmann, 74, one of West Germany's foremost surgeons and co-winner of the 1956 Nobel Prize in medicine, has died, it was learned yesterday. He was a member of the American College of Chest Physicians and a corresponding member of the British Medical Association.

Dr. Forssmann, who shared his Nobel Prize with U.S. colleagues Andre Cournand and Dickinson Richards, pioneered heart surgery in 1929 when, as a young medical assistant in Berlin, he led a wire probe through his elbow into his heart.

Jack Mulhall

HOLLYWOOD, June 7 (AP) — Jack Mulhall, 92, whose broad smile was his trademark in silent pictures and the early years of talkies, died on Friday in the Motion Picture and Television Country House and Hospital, where he had lived for the last two years, hospital officials said yesterday.

The Irish actor played opposite 101 leading ladies, becoming the first male lead to earn $1,000 a week. His films included "Sirens of the Sea" (1917), "Friendly Enemies" (1925), "Just Another Blonde" (1928) and "Hollywood Boulevard" (1936).

Theater

London: Royal Shakespeare Revives 'White Guard'

By John Walker

LONDON, June 7 (IHT) — After an impressive series of productions of Gorky's neglected plays, the Royal Shakespeare Company has now revived one of the classics of modern Russia theater, Mikhail Bulgakov's "The White Guard," first staged at the Moscow Art Theater in 1926.

The play, a dramatization of Bulgakov's much more effective novel, is deeply flawed for all its abundant vitality. In later life, he turned to writing historical dramas in order to deal openly with the opposition between art and tyranny. But here he tried to treat directly Russia's recent political revolution and was obliged to fudge and evade the issues.

He follows the fortunes of a bourgeois family in Kiev, capital of the floundering Ukraine, during the winter of 1918-19. At the beginning, they are attempting to form an army to defend a czarist regime. Then, betrayed by leaders anxious to save their own skins, they are overwhelmed by the forces of a rabble-rousing local leader who sets up an unruly and vicious government.

Finally, in the play's sentimental conclusion, as they prepare to celebrate Christmas, they welcome the arrival of the victorious armies of the Bolsheviks.

This political action is played out against a purely domestic drama of Yeliena (Juliet Stevenson) who, abandoned by her cowardly husband, is courted by most of the available men. She chooses the aristocrade Shervinksy (Michael Pennington) reforming him in the process, changing him from a vain and dandified soldier into an honest and dedicated opera singer.

Bulgakov's sympathies are very obviously with the White Guard and their code of honor. But he is forced, by the circumstances of the time, to disguise his nostalgia and, under this pressure, the play breaks up.

Yeliena's elder brother Alexei, colonel of the artillery and the play's most heroic figure, is discovered telling his men to run home and hide themselves when the battle begins to turn against them.

The local Ukrainian leader who defeats them is depicted as totally vicious, killing without compunction and torturing inoffensive Jews.

Bulgakov's "The White Guard" portrays fate of bourgeois family in the Russian revolution.

The family's rapturous welcome to the Red Army is no less unconvincing.

But the domestic scenes do have great vitality and there is much shrewdness and wit in Bulgakov's observation of them. There is a marvelous comic performance, too, from Richard Griffiths as a clumsy visiting cousin, forever out of step with reality, so that the evening does have its interest.

* * *

Brian Clark's "Can You Hear Me at the Back?" at the Piccadilly Theatre and Alan Drury's "Empty Desk" at the Royal Court's Theatre Upstairs have an almost identical theme defined by Clark's central character as "a crisis of identity." Both, too, make great use of direct addresses to the audience.

The difference between them is that it is Clark's play that is the more experimental, playing a few tricks with form. It is also the more commercial, for it is a better made and better written play and shrewdly mixes sex and glamor.

When Clark's characters address the audience, they never do so straightforwardly, but cast the audience in the role of protest meeting, congregation or school assembly. It is a device for putting moral choices to the audience, of the sort that faces Clark's protagonist.

He is a town planner who has supervised the building of a new town on the site of a pleasant small village and is suddenly horrified and ashamed of what he has done in the name of progress.

This professional crisis is matched by a personal one. His marriage has become routine and the wife of his friend and neighbor confesses her love for him and urges him to run away with her. But he is no longer able to act.

Peter Barkworth in this role gives a self-depreciating star performance, edging into the limelight, every twitch and flicker of his expressive face radiant with doubt. At the end of the play, he even pretends to step out of character, without in any way altering his performance, in order to deliver a little homily to the audience.

Clark, as in his award-winning, "Whose Life Is It Anyway?" writes topical, social plays with a great deal of slickness and wit. But the diagrammatic neatness of this one effectively keeps reality at bay. And he resorts to melodrama to enliven the final scenes. There is a strained attempt, too, to equate his architect and Britain, as both suffering the consequences of a loss of faith.

* * *

At the Theatre Upstairs, Alan Drury, the Royal Court's resident playwright, chooses a less glamorous figure, a minor government clerk, as his protagonist. In the first act, we watch Brian (Stephen Boxer) at work, cracking up after a colleague nearing retirement dies, unexpectedly, thus causing him to question the point of his existence. In the second act, he repeats the process at home, while his girlfriend, Judith (Natasha Pyne) wonders what it all means, in long monologues addressed to the audience. In neither act is there any suggestion why it should concern us, although Drury who, like his hero, was once a clerk, does provide an exhaustive guide to the routines of petty bureaucrats.

Paris: Comedie-Francaise Stages Moliere's 'Don Juan'

By Thomas Quinn Curtiss

PARIS, June 7 (IHT) — Don Juan was born in Spain more than 350 years ago, the invention of a monk-playwright who presented him as a caution. The world has not wearied of him yet and he is back — more or less — at the Comedie-Francaise in Moliere's version.

Tirso de Molina, his Spanish begetter, set him in a high-flown melodrama, full of religious fervor, and the early Italian and French imitations echo his views. Moliere, modernized him, employing him as the mouthpiece for his sotto-voce skepticism and in so doing risked being burned at the stake.

Thereafter Don Juan has been many things to many writers. Lorenzo da Ponte's libretto for the Mozart opera is a dramaturgical improvement on Moliere's loose-jointed comedy, but it remains a warning.

Contradiction

In Jose Zorrilla's play — traditionally acted every All Souls' Day in all the theaters of Mexico — the Don is saved from the flames through last-minute atonement and ascends with the angels. This is a contradiction of Moliere's defiant sinner, whose final cry is "No! No! Whatever happens, no one shall say of me that I was capable of repentance!"

It remained for Bernard Shaw to convert the lascivious knight into a forward-looking optimist. This occured when an eminent critic, A.B. Walkley, teased his colleague for his avowed puritanism with "Man and Superman," and Shaw dedicated it to Walkley in gratitude for the suggestion.

Moliere's Plan

Moliere appropriated Molina's general ground plan and wrote in haste. His construction is fragmentary, the incidents are loosely bound and the only unity is the character of the wicked hero.

The new Comedie-Francaise production by Jean-Luc Boutte is handsome and inventive scenically, rather Daliesque in design with expansive azure skies in which a Louis XIV sunburst shines and with fragments of torsos and limbs littering the ground. The ensemble has a golden framing with sumptuous costuming to match. There is a refreshing novelty to the pictorial concept.

Don Juan is often bizarrely clad, sporting the ceremonial robes of the Sun King, which would encumber his hasty getaways. It seems more likely that such an adventurer would be booted and spurred, but instead it is Dona Elvire who is in riding habit when she tracks him down.

A strange business has been made of the commendador's statue. When it is bidden to supper by the jesting Juan its head rolls off. Late at the midnight feast its arrival is prefaced by resounding thunder, but it fails to take the stage. Sganarelle comes on carrying the vagrant head. A fine theatrical effect has been fumbled with this innovation.

Francis Huster, the blaspheming nobleman of the occasion, fits the ornate setting, but it seems to have enervated him histrionically. He is best when tossing off with yawning ennui the tenets of his philosophy to his aghast valet. In the higher dramatic ranges he fails to draw the expected sparks.

Moliere knew that Sganarelle was the superior part and reserved it for himself. In the whole gallery of theatrical comedy it has few equals. It is as hilarious a creation as Falstaff and the ancestor of all comic stage manservants since. Patrice Kerbrat plays it blandly and, indeed, a vitality is lacking in all the acting. This "Don Juan" is pleasing to the eye and ear, but in action it imparts the impression that it is being performed behind museum glass.

Computers

The Talking Wheelchair

NEW YORK (AP) — It sounded a little like someone talking over an intercom, but the voice was flat and the speaker seemed at times to be imitating a German accent, at other times a Spanish accent.

It said, "Hello, my voice is electronic. Please listen to me. I can talk for my owner."

"We call it the talking wheelchair," said Carol Simpson, a co-developer of the souped-up wheelchair on display at the National Computer Conference here.

Hung on the back of the wheelchair were a small computer and a voice synthesizer. A five-inch television screen sat in front at lap level.

The occupant used controls at his wrists to write a message on the TV screen. The machine analyzed and spoke the words.

"It's designed for people who have the cognitive ability to talk but simply don't have the motor control," said Simpson, a linguist and psychologist from Menlo Park, Calif.

The wheelchair was occupied by Jim Renuk of East Lansing, Mich. Renuk, 25, has cerebral palsy, a nerve condition that interferes with the voluntary muscles. He can make himself understood with gestures and noises, but cannot speak.

Renuk was asked how he liked the wheelchair, which he had first seen 45 minutes ago. "I DO," he punched on the TV screen.

"I do!" said the machine.

The wheelchair was only one of a dozen or so devices on display at the home computing section of the conference.

The home computing buff, of whom there are an estimated 100,000 in the United States, can spend $1,000 today and put as much computing power on a desktop as the largest machines of a decade ago offered.

"And most of them sit around playing Star Trek or doing business programs," said Les Solomon, a conference official and early advocate of computers for the handicapped.

As Solomon explained it, "A handicapped person may have a perfectly good brain but no input or output — no I-O, as we call it in computerese. A computer has no brains but it's terrific at I-O. So we have a classic combination."

Sharps and Flats

LONDON — Iggy Pop is at the Hammersmith Odeon on June 8. On June 9 the Tannahill Weavers are at the Purcell Room and No Dice at the Rainbow. The following night Ian Wallace is at the Queen Elizabeth Hall and The Police at the Lyceum Ballroom. Five Hand Reel is at the Half Moon on June 11 and Manfred Mann's Earth Band at the Hammersmith Odeon on June 13. Madeline Bell is appearing nightly at the Talk of The Town and Ahmad Jamal comes into Ronnie Scott's on June 11 for a two-week engagement replacing Stan Getz.

BIRMINGHAM — Dionne Warwick will be at the Nite Out June 11-16.

BRIGHTON — The Stylistics come into the Conference Center for a one-night stand on June 10.

ON TOUR — The San Francisco rock group Tubes and the English group Squeeze will be in Hamburg June 9 at the CCH, the following night in Ludwigshafen at the Eberthalle, the 11th in Offenbach at the Stadthalle, the 12th in Hannover at the Niedersachsenhalle and the 14th in West Berlin at the Eissporthalle. Status Quo is in Manchester June 9-12 at the Apollo and in Cardiff June 13-14 at the Sophia Gardens.

PARIS — Singer-pianist Lavelle and trumpetman Longinou Parsons are the feature attractions at the Campagne Premiere through June 21. Archie Shepp is at the Petit Forum June 8-9. Ian Dury and the Blockheads at the Palais des Sports June 8 at 8 p.m. The Knack will be at the Palace June 8-9 at midnight both evenings. Offenbach follows on the 10th at 8 and Murray Head the 11th, also at 8.

BRUSSELS — Peggy Weston is appearing nightly at the Jazz Club.

ZURICH — Peter Tosh will be at the Volkshaus June 10 for shows at 4 and 8 p.m.

COPENHAGEN — Singer-pianist Lennie Bluett is appearing nightly at the Sheraton Hotel.

The week's top single record in Britain: "Sunday Girl" by Blondie. In the United States it's "Hot Stuff" by Donna Summer.

— FRANK VAN BRAKLE

DEATH NOTICE

Mrs. Edith J. Dichter
regrets to announce the death of
GABRIEL DICHTER,
93, on June 1st, at his home
in Alfaz Del Pi, Alicante, Spain.
Mr. Dichter was a journalist and
created the "Revue Petrolière" in 1922.
This will be the only official notice.

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NYSE Nationwide Trading Closing Prices June 7

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13 Month High	Low	Stock Div. in $	Yld.	P/E	Sls. 100s.	High	Low	Close	Ch'ge Prev Quot.
		— A—A—A —							
39½	29¼	ACF 2.24	6.6	7	156	34⅝	33⅝	22⅞	+ ⅛
23⅝	15⅝	AMF 1.24	7.9	7	259	15⅞	15⅝	15⅝	+ ½
32⅞	13	AM Intl .28	2.1	5	276	13⅝	13⅛	13¼	
14⅝	8⅝	APL 1	9.3		17	10⅞	10¼	10¼	— ⅛
48⅝	33⅞	ARA 1.64	4.6	7	185	36	35½	35½	— ⅛
27⅝	19⅞	ASA 1.40	5.1		587	27⅝	26¼	27⅜	— ⅜
14⅞	8½	ATO .40	4.6	5	59	11	10⅞	11	
40	29½	AbbtLb 1	3.1	13	519	32⅞	32⅜	32⅞	+ ⅜
23⅞	14¼	AcmeC 1.20	6.2	5	15	19½	19¼	19½	+ ½
6¼	3⅝	AdmDo .04	1.8	6	15	4	3⅞	3⅞	
13	10⅝	AdeEx 1.28a	12.		91	11¼	11	11	— ⅛
8½	3⅝	AdmMl .20c	3.8	7	3	5¼	5¼	5¼	— ⅛
32	28⅝	AetnaLf $1.80	5.6	5	2171	u32⅛	31⅞	31⅞	+ ½
26¼	17⅜	Ahmans 1.20	5.2	4	7	23	22⅞	22	+ ¼
4	2	Aileen			48	2⅜	2⅜	2⅜	
31⅞	23½	AirPrd .60	2.1	9	282	28	27½	28	+ ⅜
26¾	15⅛	AirbFrt 1	4.5	18	287	22⅛	22	22⅛	+ ¼
15¼	11½	Akzona .80	6.7	6	30	12⅛	11⅞	12	
9⅞	7¼	AlaP dpf.87	11.		20	7⅞	7¾	7⅞	
95	78	AlaP pf 9	11.		x290	81	79½	81	
86¾	72	AlaP pf 8.16	11.		x50	73	73	73	
86¼	71¾	AlaP pf 8.28	11.		x190	75	74	74	—1
17	13⅝	Alaspco 1.40	10.	7	23	14	13⅞	13⅞	+ ⅛
20⅝	13½	Alaskin .66	3.3	14	1017	20⅛	19½	20⅛	+1
41	23½	Albany 1	2.4	11	125	u41⅝	39⅞	41⅛	+1⅝
9⅝	6¼	Alberto .36	4.9	9	6	7⅜	7¼	7⅜	
46¾	21	Alberto 1.20	3.1	8	6	38⅝	38⅝	38⅝	+ ⅛
38½	26⅝	AlcanA 2	5.5	4	553	36⅞	36	36⅛	+ ¼
21⅞	22⅝	AlcoStd 1.40	5.6	5	14	25	25	25	
9⅝	5¼	Alexdr .40	4.6	7	166	9⅛	8⅝	8⅝	
27	17	AllgCp 1	4.0	7	31	25¼	25⅛	25⅛	
27⅛	25⅝	AlgCp pf2.84	11.		5	27	26⅝	26¾	+ ⅛
15	6½	AllegAir		3	2547	18½	9⅝	10½	+1
29¼	18	Allis pf 1.87	7.9		44	22⅝	22⅝	22⅝	+1⅜
19⅝	13⅝	AllsLd 1.28	6.4	7	160	19⅝	19	19⅝	+1
37½	30	AllsL pf 3	9.8		6	23⅛	23¼	23⅜	+ ½
23⅝	21	AllsL pr2.19	9.8		29	22⅝	22⅝	22⅝	
19	15¼	AllgPw 1.76	10.	7	194	17¼	17	17⅛	
17¼	14⅝	AllenGp s 1	6.1	7	56	16⅛	16⅛	16⅛	
35	20⅝	Allergan .60	2.1	11	30	28¼	28¼	28¼	— ⅛
42⅝	27⅝	AlldCh 3	6.3	7	803	33	31⅞	31⅝	+ ⅜
14⅝	9⅞	AlldAnl .80	7.0	7	83	11¼	11¼	11½	— ¼
16⅝	10⅝	AlldPa .60	3.7	19	17	16¼	16	16¼	+ ⅜
28	20⅝	AlldStr 1.50	6.3	6	28	23⅞	23⅞	23⅞	+ ⅜
38⅝	27⅝	AllstCh 1.80	5.5	5	52	32⅝	32⅝	32½	+ ¼
16⅞	11½	AllrAu .60b	4.1	8	78	15¼	14⅝	14⅝	— ¼
22¼	14½	AlphPr .72b	4.1	7	24	17⅝	17⅝	17⅝	— ⅛
56⅝	48⅛	Alcoa 2.40	4.3	5	432	55½	54⅝	55¼	+ ½
21	13⅛	AmISug 1	6.8	16	4	16⅝	16⅝	16⅝	
55½	32⅝	Amax 2.70	5.8	9	919	54	52¼	54	+2
51½	38⅝	Amax pf 3	6.2		21	49	48⅛	48⅛	+ ⅜
24⅞	14	Amcord 1.40	6.5	6	52	21⅛	21½	21⅛	
25⅝	16⅛	Amrce 1.32	5.9	6	13	22⅝	22⅝	22⅝	
41⅛	23¼	AHess 1.60	2.5	7	1055	40⅝	39⅛	40	— ½
47⅝	40⅝	AHes pf2.50	6.0		56	88⅝	88⅝	88⅝	
19⅝	10⅝	AmAir .40	3.7	2	1186	10⅝	10⅝	10⅝	+ ⅛
9¼	4	AmAir wt			973	4⅝	4⅛	4¼	+ ½
22⅝	19½	AAir pf 2.18	11.		37	19⅝	19½	19½	— ⅛
20½	12¼	ABakr 1.20b	8.0	7	14	15¼	15	15	— ⅛
60¼	45½	ABrnds 4.50	7.6	7	244	59⅝	58⅝	58⅞	+ ½
28⅝	22⅞	ABrd pf1.70	6.8		7	28¼	28⅛	28⅛	+ ⅜
32⅝	30⅝	ABrd pf2.75	8.5		94	32½	32¼	32¼	
32	28⅝	ABrd pf2.67	8.5		140	31⅝	31¼	31⅝	+ ⅛
43⅝	32⅝	ABdcst 1.20	3.3	7	607	37⅛	36¼	36⅝	+ ⅛
20½	13½	ABkIdx .20	5.2	7	4	13⅝	13⅝	13⅝	
42⅝	34½	AmCan 2.80	7.3	6	81	38⅝	38⅛	38⅛	
22¼	19⅝	ACan pf1.75	8.4		7	20⅝	20⅝	20⅝	+ ⅜
5⅛	2⅛	ACentry			98	5	4⅞	5	
22⅞	23⅝	ACyan 1.60	5.9	8	318	27¼	26½	27⅛	+ ¼
14⅛	8⅛	AmDisll			42	12⅝	11⅞	12⅛	+ ½
36	22⅛	ADT 1.80	4.7	8	46	22⅝	22⅝	22⅝	
11¼	8⅛	ADualVI .84a	8.0		5	18⅛	18⅛	18⅛	
24⅛	19⅝	AEIPw 2.18	10.	9	1121	21¼	21	31¼	+ ⅛
40⅝	27⅝	AmExp 1.80	5.1	8	1503	35⅝	35	35⅝	+ ⅛
17½	8⅝	AFarm .40	4.9	6	151	12⅝	13	12⅝	+ ⅛
23⅝	19	AGIBd 2e	9.6		36	20⅝	20½	20⅝	+ ⅛
19	15⅛	AGnCv 1.95e	18.		62	18⅝	18⅛	18⅝	+ ¼
29½	22⅝	AGnins 1	3.4	5	176	29⅝	29	29	— ⅛
34⅝	29	AGin pf1.80	5.0		9	36⅛	36	36	
13¼	9⅝	AHerlfLf .48	3.7	8	16	12⅞	12½	12⅞	+ ⅛
22⅛	12	AmHoist 1	6.1	6	285	16⅝	16¼	16⅝	+ ⅜
32⅝	24⅝	AHome 1.50	5.8	13	1898	26⅝	26⅝	26⅝	+ ⅛
142⅝	118⅛	AHome pf 2	1.7		x3	119	119	119	+2⅞
32⅝	23⅝	AmHosp .50	2.0	11	354	29	28⅛	28½	— ⅛
13⅛	6⅝	AmInvst .30a	2.8	10	6	10⅝	10⅝	10⅝	
25⅝	18	AMI .80	2.7	18	325	29⅛	29⅛	29⅛	
9¼	4⅝	AmMotrs		3	1150	7⅝	6⅞	7	+ ⅛
47	36	ANatR 3.20	7.9	8	59	40⅝	40¼	40¼	+ ½
28½	24⅛	ASLFl n.60a	2.4	5	34	25⅝	24⅝	24⅝	— ⅛
16¼	18⅛	AShip .80a	6.0	95	15	13⅝	13⅝	13¼	+ ⅛
53⅛	29	AStand 3	6.3	6	144	47½	47	47⅛	+ ⅜
9⅝	6	AStertl .32	4.1	9	1456	7⅝	7⅛	7⅝	+ ⅛
56⅝	29½	AmStrs 2.24	4.8	8	52	56½	56⅛	56¼	+ ⅛
64⅝	57	ATT 5	8.6	7	1809	58⅛	58	58⅛	+ ⅛
63⅝	60⅝	ATT pf 4	6.4		8	62	62	62⅛	+ ⅛
49⅝	43⅝	ATT pf 3.64	7.7		27	47¼	47¼	47¼	+1½
50⅝	44⅝	ATT pf 3.74	7.8		61	48⅛	48	48⅛	+ ⅛
13⅛	18⅛	AWatWk .88	6.5	7	1298	u13⅛	13⅛	12⅞	+ ⅛
17⅝	14⅛	AWol pf1.43	0.7		x100	16½	16½	16½	
14¼	12	AWa Spfl.25	9.6		x200	13	13	13	
23⅝	15⅛	Ameron 1	4.8	7	42	31	21	31	+ ⅛
16⅝	9½	AmesD .40b	3.3	5	43	11⅞	12	11⅞	
37⅝	27⅛	Ametek 1.80	5.5	5	117	32½	32⅛	32½	— ⅛
20⅞	15⅝	AmtcCp 1.20	6.0	6	50	20⅛	19⅝	20⅛	+ ⅛
40	29½	AMPInc .76	2.1	13	293	35⅞	35½	35⅝	— ⅛
19⅝	18⅞	Amprex 1	11.		49	19⅝	19⅛	19⅝	+ ⅜
6	2⅝	AmrepCp			15	17	4⅞	4⅞	+ ½
23⅛	14⅛	Amstar 1.35	7.4	11	117	19	18⅛	18⅛	— ⅜
45	29½	Amsted 2	5.2	7	198	38⅛	37⅝	38⅛	+ ⅛
19¼	14⅝	Analog 5			14	34	16⅝	16⅝	+ ⅛
18⅝	17⅛	AnchrH s1.20	6.9	4	198	17⅞	17½	17½	
26	18⅛	AndClay 1.12	5.8	6	152	19¼	18⅝	19¼	
8⅛	5⅛	Anpellco .24	5.2	7	78	6⅝	6⅝	6½	
15⅝	8½	Anixter .40	2.7	8	61	14⅞	14½	14⅝	— ½
24⅞	18⅝	Apache s.40	1.6	18	273	24⅝	24¼	24¼	— ½
23⅛	7⅝	ApldDis		7	140	9	8⅝	8⅝	— ⅜
11	5⅛	ApplMg		10	839	u11⅛	10½	10½	
26⅝	17½	ArcatuC 1.13	4.5	7	90	24⅝	24¼	24⅝	+ ⅞
31⅝	12⅝	ArchrD .20b	1.0	11	473	20⅝	20⅛	20¼	
11⅛	6	ArctEnt .10e	1.2	14	22	8⅝	8⅝	8⅝	
21⅛	18⅛	ArizPS 1.88	9.9	7	293	19⅛	d17⅛	19	
18⅛	9⅛	ArkBsi .60b	6.2	6	66	9⅞	9⅝	9⅝	+ ⅛
39	28⅝	ArkLGs 2.20	5.8	9	63	38⅝	38	38⅛	— ¼
5¼	1⅝	ArlenRlty			363	2⅝	2	2	— ¼
8¼	5⅛	Armada		7	7	6⅝	6⅝	6⅝	— ⅛
23⅝	17	Armco 1.36	6.6	4	159	20⅝	20¼	20½	+ ¼
30½	25⅝	Arm pf 2.18	7.6		7	27¼	27⅛	27¼	+ ⅜
21⅞	14⅞	ArmCk 1.10	6.3	7	37	17½	17¼	17½	+ ⅛
32	18⅛	ArmRu 1.20	6.4	4	18	18⅝	18¼	18¼	
24	15⅝	AroCorp 1	5.2	7	8	19	18⅞	19	— ⅛
16	7⅝	ArrowE .20r	1.3	6	16	u16⅛	15½	15½	— ⅜
22⅛	12	Arvin 1	7.1	4	86	14⅛	14	14⅛	+ ⅛
25	22¼	Arvin pf 2	8.2		5	24¼	24¼	24¼	
20⅝	13⅝	Asarco .80	4.4	5	519	18⅝	18¼	18¼	— ¼
45½	31	AshOil s 2	4.7	7	351	42⅝	42⅝	42⅝	+ ¼
22½	15⅝	AsdDG 1.50	8.6	7	166	17½	17½	17½	
22⅛	15½	Athlone 1.20	5.9	5	56	20⅝	20¼	20½	
22⅝	17½	AtCyEl 1.74	8.8	8	69	19⅝	19½	19⅝	+ ⅛
66½	47⅝	AtlRich 2.80	4.3	9	1871	66⅛	65⅝	65⅝	— ½
79	57	AtlRc pf2.80	3.6		18	78⅝	78	78	— ½
15⅝	9½	AtlosCp			225	u16⅝	15⅝	16⅛	+1
34⅝	27¼	AutoDta .64	1.9	16	282	34⅝	34	34	
35	18½	AvcoCp 1.20	5.4	3	594	21¼	21⅛	21⅜	+ ⅛
70	42	Avco pf 3.20	6.5		4	47	47	47	
19½	13⅝	Avery .52	3.8	8	142	17½	16⅝	17½	+1
23⅝	13⅝	Avnet .80	4.2	6	87	19⅝	18⅝	18⅝	— ⅛
63	45⅝	Avon 2.80	4.0	13	1519	47¼	46½	46⅝	— ½
		— B—B—B —							
3	1⅛	BT Mts			22	2⅝	2⅝	2⅝	
11⅛	6⅛	Bache .40a	4.5	5	231	9½	8⅝	8⅝	
43⅝	25½	Bakrint .60	1.4	15	292	u43⅝	43¼	43¼	+ ⅛
30⅝	17½	BaldwU 1.20	4.9	7	228	30⅝	30⅛	30⅛	— ½
45⅝	28⅝	BldU pf 2.06	4.6		191	45½	45¼	45¼	+ ⅛
28⅝	20⅝	BallCo 1.20	5.8	5	4	21¼	21¼	21¼	— ⅛
84⅝	29⅝	BallyMf .18	.1	22	2430	u87⅞	83⅞	87½	+5
42⅝	31½	BallyMf wi			1271	u41⅛	41⅛	41⅛	+2⅛
27⅝	21½	BallGE 2.44	10.	7	872	24⅛	23⅝	24⅛	+ ⅛
52⅝	45	Ball pf8.50	9.8		x100	46	46	46	+1
26¼	18⅛	BanCal .92	4.2	6	22	21⅞	21⅛	21⅞	+ ⅜
16⅞	11¼	Bandag .60	4.8	9	406	15⅝	15	15⅛	+ ⅛
31⅝	17⅝	BangPnl .40	2.4	6	39	25	24⅝	24½	— ⅛
42½	25	BanP pf 2	5.9		2	34	34	34	
30	30⅝	BnkNY 2.44e	7.7	5	23	22	21⅞	31⅞	+ ⅛
17⅝	13⅛	BkofVa 1.04	7.5	5	28	14	13⅞	13⅞	— ⅛
29⅞	22	BnkAm 1.32	5.1	7	733	25⅞	25⅝	25⅝	+ ⅛
32⅝	22⅝	BankTr 2	7.7	6	197	39	37⅝	37⅝	— ⅛
29⅝	25⅝	BkTr pf2.50	9.1		4	27½	27½	27½	
51⅝	45½	BkTr pf4.22	8.6		324	49	48⅝	49	+ ⅛
14⅝	8⅝	Bankr .13	1.1	9	34	11⅝	11⅛	11⅛	+ ⅛
16½	31⅛	Barber 1.60	4.6	8	40	35¼	34⅝	34⅝	— ½
18⅞	10⅝	BardCR .32	2.6	18	159	12½	12½	12½	— ¼
28	20⅝	BarnsGp 1.20	4.8	6	2	25⅛	25¼	25¼	+ ¼
17⅝	14⅝	BarryW s.44	2.6	18	27	17⅛	16⅝	16⅝	
65¼	50	BatesMf .80	1.3	34	2	62⅝	62⅝	62⅝	+ ½
54¼	32⅛	Bausch 1.72	4.3	7	139	40⅛	39½	40	+ ¼
49⅝	33⅝	BaxtTrv .50	1.2	14	249	41½	41⅛	41¼	+ ⅛
6¼	2⅝	BayCoIP			72	6⅛	5½	5⅝	+ ⅛
31⅝	18⅝	BayStKG 1.96	9.9	2	4	19⅝	19⅝	19⅝	+ ⅛
33⅝	25	Bearing .80	2.4	18	25	33⅝	33⅛	33⅝	
29⅝	20⅝	BeatFd 1.20	5.5	8	1399	21½	21⅛	21⅛	+ ¼
58⅛	43⅝	BeatF pf3.38	7.4		86	45⅝	45⅝	45⅝	+ ⅛
25⅝	28	Beckm .20	1.2	15	120	24⅝	23⅝	24⅛	+ ½
39⅝	30⅝	BecnD .84	2.5	11	70	33⅝	32⅝	33⅛	— ⅛
31½	20	Beech .92	3.9	7	544	23⅝	22⅝	23⅛	+1⅝
9⅝	2⅝	Beker		13	196	9	8⅝	8⅝	— ⅛
33	34⅝	BelcoP 8.80	2.5	8	306	u34⅝	32⅝	32⅝	— ⅛
26½	19⅝	Belden 1.60	4.6	5	3	24½	24½	24½	— ⅛
9	6⅝	BellInt .360	5.2	6	8	7	6⅝	6⅝	— ⅛
23⅝	14⅝	BellHow .96	5.4	18	165	18⅛	17⅝	17⅝	+ ⅜
9⅛	5½	BellInd .12a	1.6	5	141	7⅝	7	7⅝	+ ½
19⅝	18⅝	BellCd g$1.52		5		19⅝	19⅝	19⅝	+ ⅛
24⅝	19½	Bemis 1.40	6.4	5	8	22¼	22	22	
43⅝	33½	Bendix 2.56	6.5	6	113	39⅛	38⅝	39⅛	+ ½
85½	68½	Bendix pf 3	3.8		1	79	79	79	+2⅝
26⅝	20½	BentCp 3	8.8	6	399	25⅛	24⅝	24⅝	+ ⅛
52	43	Benef pf4.50	10.		x200	44	43	43	—2
5⅛	2⅝	BengHlt			8	107	3⅛	3	— ⅛
9⅝	4½	BerkeyP		13	250	6⅝	6¼	6⅝	+ ⅜
34¼	20½	BestPd .16	.7	7	172	23¼	23	23	— ½
27⅛	19½	BethStl 1.40	6.5	5	323	21⅞	21⅛	21⅛	
40⅝	29⅝	BigTtr .80	2.0	14	1867	40⅛	38⅝	39⅝	+1½
21	17	Binney .80	4.8	8	5	16⅝	16⅛	16⅝	+ ¼
33⅝	17½	BisFSL 1	3.4	6	21	30	29½	29½	— ⅛
32⅝	15⅝	BlackDr .68	3.1	11	481	22½	21⅝	22	+ ⅛
32	18⅝	BlairJn 1.28	4.6	6	111	30	27⅞	27⅞	+ ⅛
19¼	13⅛	BlissL 1.18	6.5	7	1	17	17	17	
26	19⅝	BlckHR 1.36	6.1		37	22⅝	22	22⅝	+ ⅛
27½	18⅛	BlueB 1.60	6.3	6	218	25½	25⅛	25⅛	— ⅛
10	5⅝	Bluebrd .28	3.0	6	21	9⅛	9⅛	9⅛	
7⅝	4⅛	BobbieBr		4	21	4⅝	4⅝	4⅝	+ ⅛
45⅝	37¼	Boeing s 1	2.4	7	1733	42⅝	41⅝	42¼	+ ¼
35⅝	22½	BoiseC 1.50	4.5	6	68	33⅝	33⅝	33⅝	— ¼
31⅝	24⅝	Borden 1.82	4.8	6	382	27⅛	26⅝	26⅝	— ⅛
34⅝	26	BorgW 3	8.7	5	186	30⅝	29⅞	30	
9⅞	4⅝	Bormns .10e	1.7	5	22	5⅞	5⅝	5⅝	+ ⅛
25⅝	20⅝	BosEd 2.44	11.	7	44	22⅛	21⅝	22⅛	+ ¼
93	78	BosE pf8.88	11.		x70	81	81	81	— ½
12	18	BosE pr1.17	11.		8	10⅛	10⅛	10⅛	+ ⅛
15⅝	12⅝	BosE prl.46	11.		3	12⅝	12⅝	12⅝	— ⅛
18⅛	9⅛	BoshIl .44	3.4	6	684	13¼	12⅝	13	+ ½
37⅞	20⅛	BrounC .80	2.3	11	85	35⅛	34¼	35⅛	+ ¼
31¼	25	BrlpSt 1.20a	4.7	8	45	26¼	25⅛	25⅛	— ⅜
40⅝	20½	BrlsM 1.44	4.3	11	538	34¼	33⅝	33⅝	+ ⅜
46⅛	35½	BrlsM pf 3	5.2		3	38⅝	38⅝	38⅝	+ ¼
25⅞	15¼	BrlPet .34e	1.3	11	944	u26	25⅝	25⅝	+ ⅛
19½	15⅛	BrkwGl 1.88	8.7	8	11	16⅝	15⅞	16⅛	+ ⅛
22⅝	18⅝	BkyUG 2.02	9.2	6	40	21⅞	21⅝	21⅞	+ ¼
23¼	14⅞	BwnSho .80b	4.6	5	4	18⅛	18	18¼	+ ¼
19¼	7⅛	Brown .30	2.1	4	13	14⅞	14¼	14½	— ⅜
30	23⅛	BwnSp 1.80	7.5	5	11	34⅛	23⅞	24⅛	+ ½
16	11	BwnFer .40	4.9	8	325	12⅝	12⅛	12⅛	
18⅛	12⅛	Brnswk .80	5.8	5	201	14	13⅝	13⅝	
34¼	27⅝	Brnsk pf2.40	8.5		25	28½	28⅝	28⅝	+ ½
37	20	BrushW 1.80	4.9	7	67	u37⅞	36¾	37	+ ¼
21⅝	15¼	BucyEr .88	4.2	8	2584	21¼	20½	20⅝	+ ⅛
6⅝	5⅝	BudgC pf.60	10.		1	5⅞	5⅞	5⅞	— ⅛
33⅝	22	BuffCo 1.80	5.7	7	15	31½	31	31½	+ ¼
13⅝	19	Bundy 1	8.0	5	19	12⅞	12½	12½	— ⅜
21	17⅝	BunkrH 1.90	6.1		1	18	18	18	
29⅝	9½	BunkR .84	3.3	8	514	28	25¼	25½	—2⅝
29⅝	18	BnkR pf1.50	5.9		9	25⅛	25¼	25½	—2½
22⅝	16⅝	Burlind 1.40	8.3	6	572	17	16¾	16⅞	
50⅝	35	BurlNo 1.80	3.5	6	1343	u51¼	50⅝	51	+2
49¼	36	BrlNo pf2.85	5.8		33	u49¾	49¼	49½	+ ⅛
26⅝	17½	Burndy .88	3.6	9	8	24⅛	24¼	24⅛	— ¼
7½	2⅛	BrnsRL .20	5.2		875	3⅞	3⅝	3⅞	+ ⅛
88	64⅝	Burrgh 3	2.8	11	241	71⅛	70¼	70¼	+ ⅜
19⅝	14	ButlerInt s.80	4.2	8	29	19⅛	18⅝	18⅝	— ½
15½	6⅝	Butles			69	213	11⅝	11⅝	+1½
		— C—C—C —							
64⅝	44½	CBS 2.60	5.7	7	504	46	45¼	46	+ ⅜
11⅝	4⅝	CCI		4	485	8⅛	8⅛	8⅛	+ ⅜
25½	18	CI Rty .20a	8		230	24⅝	24½	24⅝	— ⅛
36⅝	29	CIT 2.60	7.3	8	1472	36	34⅝	35⅞	+1
15½	8⅝	CLC .24	2.3	11	14	10⅝	10¼	10¼	
14½	7⅝	CNA Fn		3	795	11½	11¼	11½	
18⅝	13¼	CNA pf 1.18	6.8		216	16⅝	16¼	16⅛	— ⅛
12½	9⅝	CNAI 1.08a	9.4		5	11⅛	11⅛	11⅛	+ ⅛
55	46⅝	CPC 3	5.9	8	122	51¼	50⅝	51	
17⅝	14¼	CP Nat 1.44	11.1	4		14½	14⅝	14⅝	
21⅝	14⅝	CTS .80	4.6	7	37	17¼	17	17¼	+ ⅛
39⅝	24⅝	CabotC 1.40	3.6	7	251	38⅝	36⅝	38⅝	+2⅝
13⅝	7⅝	Cadence		6	184	u14	13⅛	13⅝	+ ½
30⅛	18⅝	Caesars s		74	1283	u32⅝	30¼	32	+3⅝
20½	13	Calgn .50b	2.6	13	191	19⅝	18⅛	19	+ ½
5	2⅝	CamerB		9	97	u 5⅛	5	5	
20⅝	18⅛	CmpRI g s.80		17	203	20⅛	19⅝	19⅝	—

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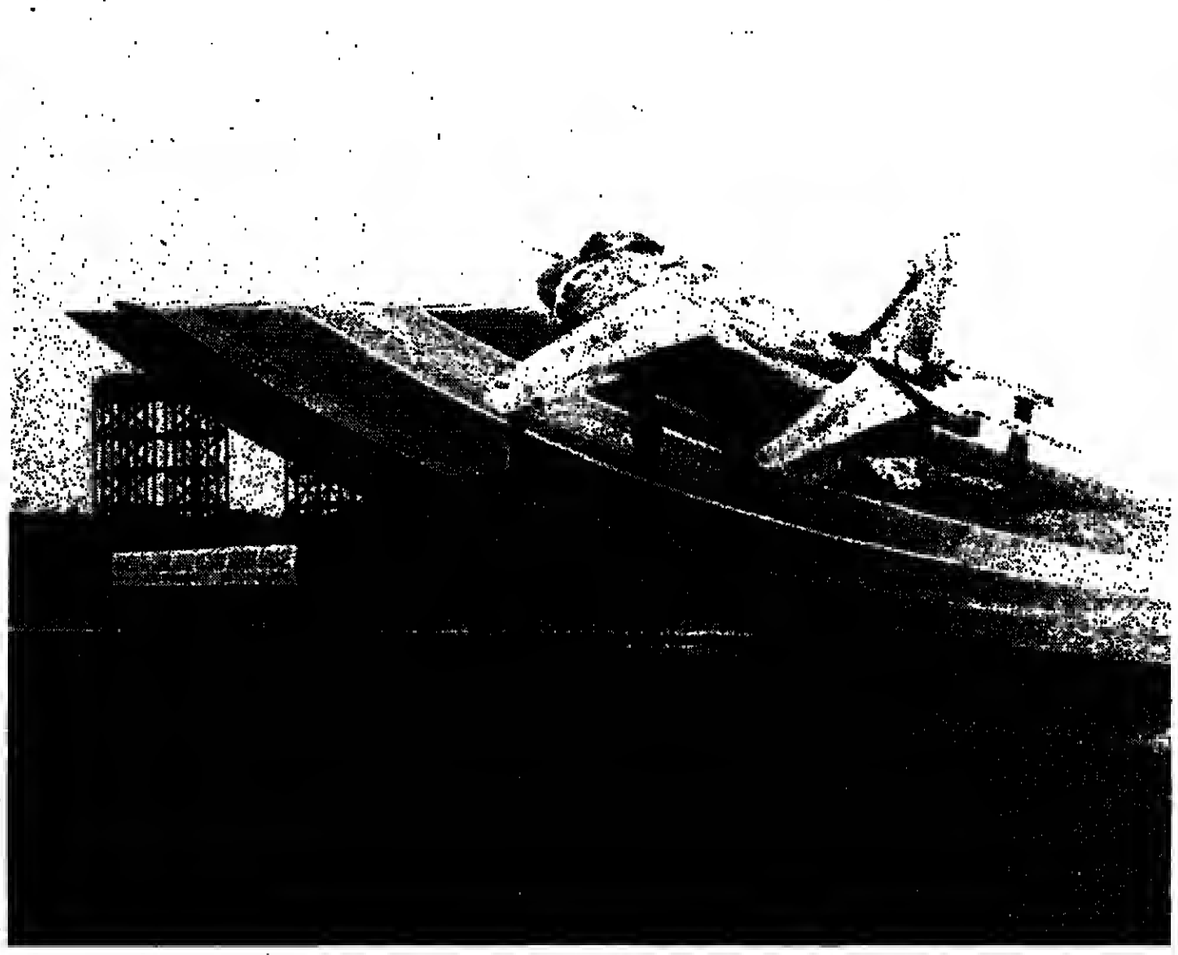
The Aerospace Industry

Harrier's New Trick in Taking Off

Vertical Is Too Costly — Oblique Is In



British Aerospace's Sea Harrier roars up the 'ski jump' for takeoff.

By Alan Tillier

PARIS (IHT) — "It's going at a brick wall," said the passenger next to the pilot. The man at the controls did not bear as he shot the plane up a short ramp and into the sky..

The plane was the Sea Harrier, the naval version of Britain's technological wonder, the fighter that goes straight up and then forward. Its makers, British Aerospace, will stage the overseas debut of the Sea Harrier at the Le Bourget air show, but this time the West's only operational jet VTOL (Vertical Short Take-Off and Landing) aircraft will be displayed not as a "jump-jet," as it is commonly known, but as a "ski-jump" jet.

The takeoff ramp is supported by girders and is 126 feet long and 13.9 feet high. The angle is up to 20 degrees. Normally the ramp will be fixed to the decks of ships such as HMS Hermes, the Royal Navy's new commando carrier and the new RN Command cruisers. For the Paris air show it will be placed on the grass and will enable the Harrier, a longtime favorite with Le Bourget crowds, to show off another one of its tricks.

Why the mini runway or ramp if the Harrier is capable of going straight up into the air? Because it is cheaper. Vertical take-off requires a lot of fuel and this reduces range and the weight of weapons systems.

Unusual Technique

The ski-jump launch was originally proposed by a Royal Navy officer as a means of boosting the short take-off performance of vectored thrust fighters. Tests in 1977 and 1978 showed the benefits of this highly unusual technique.

A ski-jump of 20 degrees provides an effective Harrier launch capability 30 knots less than from a flat deck and about 60 knots less than from a runway. The gain is achieved because the Harrier continues to accelerate to flying speed in the semi-ballistic trajectory after launch. At fixed weight, the total distance needed for a ramp launch is 40-50 percent of that from a flat deck and the Harrier can carry 1,000 kilograms more fuel or weapons.

The Harrier has been both a technological and sale success since its introduction. Firm orders for the aircraft now total almost 300. Buyers include the Royal Air Force, the U.S. Marine Corps and the Spanish Navy, which calls it the "Matador." The United States for the moment is in for 110, while a British Aerospace McDoooell Douglas agreement has been concluded to launch an advanced version of the Harrier, the AV-8B, for potential service with the Marines in the mid-1980s. This $5-billion project calls for Harriers to be assembled in the United States but with substantial British participation.

The new sales ramp for the Harrier has encountered problems in the Uoited States, where Defense Secretary Harold Brown, in the words of one British aircraft commentator, "chopped it — only for the U.S. Marines to fight back." Mr. Brown wants the Marines to have a conventional fighter bomber. However, the retiring Marine Corps director of aviation, Lt. Gen. Thomas Miller Jr. is an enthusiastic supporter of the Harrier. He was the first American to fly it and be calls it a "total success."

Still, there is a doubt about AV-8B funds. The Carter administration argues that it already has enough new aircraft. Yet, two Congressional comminees recently voted $180 million to continue U.S. development of the Harrier in defiance of the White House.

This Anglo-American Harrier would have a lighter carbon-fiber wing. There is a counterproject from the Royal Air Force for a British-made aluminum wing that could be fitted to existing Harriers as well as serving future Harriers. There are differences here as to the merits of Anglo-U.S. collaboration compared to a purely British policy aimed at securing the maximum profit form a British invention. And answering specific RAF requirements over the next decade or two.

There are arguments in Britain that the AV-8B is in line with the new collaborative spirit on arms production within NATO. The sums may be right, but Mr. Brown has yet to be convinced. Gen. Miller is doing both his best and his worst by complaining about experts "who haven't seen a shot fired in anger." British Aerospace adds that continued uncertainty about the AV-8B Harrier and the RAF's preference for the aluminum wing means "there could be room for both."

The newly oationnlized company — it was formed in 1977 from the aerospace interests of the British Aircraft Corp., Hawker Siddeley and Scottish Aviation — reported a good first year as a single trading organization on the eve of the air show.

Sales turnover of £894 million — 55 percent for export — meant a trading profit of £79 million, some £4 million above 1977 after making provision for possible losses on Iranian contracts. Some £11 million was allocated out of trading profits for new project launching costs leaving a post tax net profit of £29 million. At the end of 1978 the forward order book had reached 2,951 million of which 69 percent was for export, an increase of more than £650 million during the year.

The company, which made the Concorde with France and which has major military aircraft cooperation programs with Europe such as Jaguar and Tornado as well as manufacture of missiles and civilian planes, is probably the most diversified in the world.

The emphasis on Europe was strengthened with the decision to become a full partner in Airbus Industries, makers of the successful wide-bodied A-300 series. Previously, Hawker Siddeley had made the wings under subcontract. British Aerospace was faced with a choice between Boeing and Airbus Industrie, but as its annual statement pointed out: "The concept of full and equal partnership in Airbus Industrie was preferable to a subcontracting role with the Boeing company; the wide-bodied Airbus A-310 appeared to have more attractive marketing prospects through the 1980s and 1990s than the narrow-bodied Boeing 757, and the prospect of an ongoing relationship and a larger family of aircraft was much clearer with the European partnership than with the Boeing subcontract."

Military

The agrement with the European consortium provided for a 20-percent British Aerospace participation and by the end of 1978 about $50 million had been paid to Airbus Industrie oo account. (The civilian side of British Aerospace has been broadened further by the launching of the BA 146 feeder jet and the twin-turboprop Jetstream 31, represented by cabio or fuselage mock-ups).

But the other big European programs are military. The Jaguar International made in conjunction with France's Dassault Breguet will take off from grass at the air show carrying Magic overwing missiles.

Tornado P16, the sixth pre-series aircraft which made its first flight from Manching, West Germany, on March 26, is flying at the show. Tornado, produced jointly by British Aerospace, MBB of West Germany and Aeritalia of Italy is Europe's largest military aircraft program with a total requirement for 809 aircraft. The first production interdictor/stroke (IDS) aircraft has just been rolled out in Britain while the first prototype of the British-developed air defense variant will fly later this year. The Tornado is being evaluated by the United States for its advanced tactical fighter program to replace the F111.

The British company's Hawk ground attsek/trainer, which has been sold to three countries will be on prominent display. It also is being evaluated in the U.S. for the Navy's trainer program, which will be the world's biggest ever training system deal.

But the star will be the Sea Harrier, of which 36 have been ordered by the British Royal Navy — the first production plane will be handed over on June 18. British Aerospace says India is about to buy the Sea Harrier (India has already ordered a "large number" of Jaguars) while the company is hopeful of selling the ski-jump plane to the French and Australians.

The new Conservative government has said it will denationalize British Aerospace by offering shares to employees as well as the public. But the Government seems likely to keep some stake in what is a successful concern.

Paris Air Show Presents Record Number of Planes

By S.T. Karnin

PARIS (IHT) — The 33d International Paris Air and Space Salon opens at Le Bourget airfield tomorrow with the greatest air show on earth.

More than 680 exhibitors of air and space products and services from 25 countries — including the Soviet Union — will be presenting a record 285 aircraft, many of them in flight demonstrations. And the sum of the various planes on static display and in flight is a total that can be seen nowhere else on earth.

The Paris air show was the world's first when it opened in 1909 and it is still the biggest, although the names of Breguet, Bleriot and Voisi have given way to modern giants such as Boeing, Lockheed, Northrop and others.

The 33d airshow opens under a different aegis than did the previous one two years ago. Then it was still smarting from the effects the "Arms Deal of the Century," which hitted with all the violence of unchecked commercial competition a U.S. aircraft maker against two European firms for the sale of some 100 combat planes for four European nations. Now it takes place at a time when the world's No. 2 aircraft maker is a European firm, Airbus Industrie, which accounts for 19 percent of the world's sales of airliners — including sales to the United States.

Limited Change

But the aircraft market has changed only to a limit. The leading airplane maker remains a U.S. firm. Boeing — whose name had become synonymous with jet airliners — who still controls 57 percent of the world market.

Six countries, which have entered the world of aerospace manufacture — Denmark, Finland, Greece, Jordan, Norway and Portugal — will be presenting aircraft of aerospace equipment for the first time.

Yet the biggest demonstrator, once again, will be the United States. And it will be the biggest effort yet for U.S. firms, with 106 firms showing their wares or services, many of them in the permanent U.S. pavilion. The United States will have spent $300,000 to prepare its demonstration here, two thirds of that sum borne by the manufacturers.

The Commerce Department, which coordinates the U.S. participation at the show, explains the U.S. interest in the Bourget Salon by saying that there "is no equivalent in the world" to the air show. As best as can be determined, a department spokesman said, the 1977 exhibition generated $110 million of orders for U.S. firms in a single year.

Value Increase

The real and total value of business done directly and indirectly at the air show cannot be determined. Yet, the United States expects the value of its aerospace shipments this year to reach a total of $25.7 billion, that is 29 percent more than the $19.9 billion worth of material sold last year. Exports of U.S. material this year, according to U.S. figures should come to about $12.9 billion, 36 percent more than last year's $9.5 billion.

The United States forecasts imports of $1.1 billion worth of air and space equipment, 9 percent more than last year. This would leave a trade surplus of $11.8 billion and little concern of losing jobs for the 145,000 U.S. aircraft production workers.

The Western world's second largest aircraft industry is that of the host country, France, whose 103,000 aerospace industry workers produced a turnover of $5.8 billion, about $3 billion of which was exported. The French industry booked $4 billion worth of export orders last year.

Third and fourth place among aerospace builders in the west go to Britain, with a turnover about 12 percent smaller than that of France and to West Germany, with a figure a little more than a third of that of the French industry.

Space Shuttle

At Le Bourget the U.S. exhibit hall will feature a full-size mock up of the space shuttle to accentuate the slogan under which the U.S. firms are participating : "Tomorrow's transportation today."

And to further stress the concept that tomorrow's transportation is linked to space, the United States will have an astronaut, Fred Hayes of Apollo 13 (which accomplished a task greater than landing on the moon, that of bringing a crippled spacecraft around the moon and back to earth safely with three astronauts) and Margaret Seddon, an astronaut candidate for one of the Spacelab missions.

The Soviet Union, which has filled its exhibit hall with a full size replica of the Salyut space station now in orbit will also bring two cosmonauts — as yet unnamed — to the only air and space show at which they show their wares outside of the Soviet Union.

Space technology has a large place at the show, with electronic and other components being presented at many of the various national and individual stands and with a full-scale 150-foot Ariane launcher looming over the static display area. Near the Ariane are the French and European space research pavilions, which will house displays of the 35 European firms taking part in the Ariane development program.

Harbinger for U.S.

The U.S. pavilion has taken a full step into the industrial race for space with a NASA display of a full-size mock-up of the space shuttle and various boosters and equipment parts presented in the part of the exhibit hall reserved for professionals.

But the U.S. participation is a display of not only what is being done in aircraft and in space, it is also a harbinger of things to come. As evidence of today's look at tomorrow is what NASA indicates that it is studying and currently developing. Among these projects is one for a silent aircraft, that is a 150-seat airliner that would make only one-third of the noise that current aircraft are responsible for and would still have short takeoff capabilities.

Indicative of the calmer, more businesslike approach of this year's air show — compared to previous, more spectacular, more warlike ex-

(Continued on Page 10S)

NASA Ventures Get an International Boost

Spacelab With European Direction and Design

PARIS (IHT) — In the 10 years that have passed since the first moon-walk, the National Aeronautics and Space Administration has become less and less noticeable to the general public, even though its activities in space exploration and other high technology fields have continued at a high level.

When NASA does return to public attention with the regular space shuttle flights of the 1980s, it will be with a noticeably international tilt. On almost half of the 400 flights the space shuttle is expected to take in the 1980s, its cargo hold will be given over to a laboratory of European direction and design.

Called Spacelab, this will be a pressurized flying laboratory that fits into the payload bay of the main shuttle vehicle. Non-astronaut specialists will be able to perform experiments in the weightless environment of space for extended periods. The accelerations of shuttle take-off and landing will be all under 3 times the force of gravity, so any moderately healthy individual with the appropriate qualifications will be able to work on a spacelab mission.

Two Sections

Spacelab is composed of two sections, and will be able to be fitted together in several configurations. The first section is a pressurized module, and is the working area for the spacelab crew. This module is crammed with scientific instruments, many of them more delicate than anything on earth, because they can work unencumbered by gravity. Four crew members will likely be taken up, so that they can work in shifts and keep the instruments constantly attended.

The spacelab staff's living quarters will be in the shuttle cabin, connected to the spacelab by an access tunnel about a yard in diameter.

Soundless

Along with the pressurized module, spacelab can contain a number of flat pallets on which instruments or industrial equipment can be fastened. Once the shuttle reaches orbit, it will swing open its enormous bay doors, and expose whatever is on those pallets to empty space.

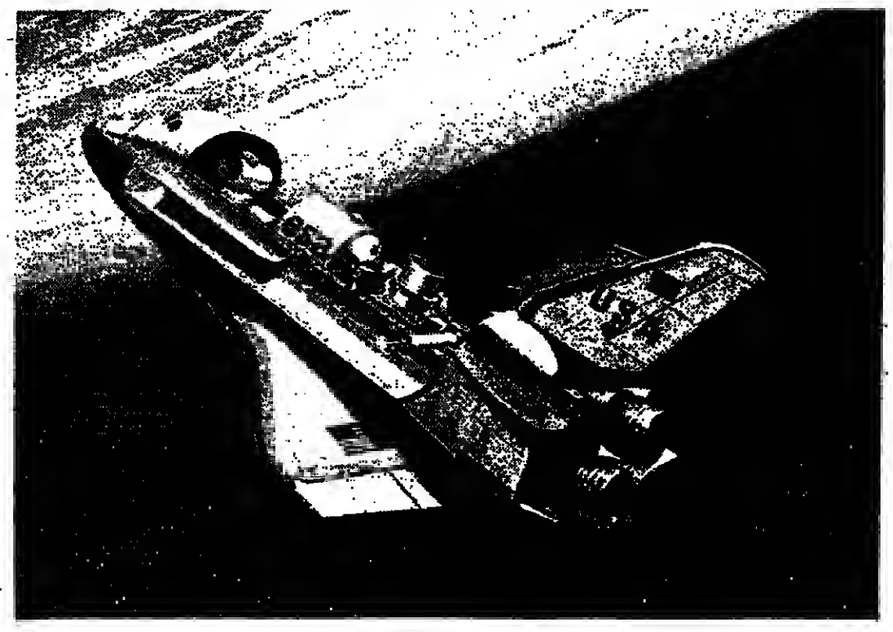
Coasting soundlessly 155 miles above sea level, telescopes and radar equipment on a spacelab pallet will be able to conduct earth surveys, astronomical observations, or perform research on space manufacturing techniques.

The first shuttle flights will last less than two weeks, but by the mid-1980s it is thought that solar panels will be able to be set up outside the shuttle, thereby providing the electicity needed to keep the spacelab operating for a longer period of time.

Although the European Space Agency (ESA) is cooperating with NASA on spacelab, it is keeping up a stiff competitive front in the important field of launching satellites. ESA is devoting as much money to its own satellite booster system, Ariane, as it is to Spacelab.

Fuel

An example of NASA's work from a completely different field, although still linked with its high-technology focus, is the prevention of fuel explosions in aviation accidents. One method of accomplishing this is through the use of antimisting additives. The rpsence of less than one-half of one percent of these additives can greatly reduce the extent of fine spray that is produced by a fuel leak. The additive makes the fuel escape in large globules or filaments, greatly improving the chances for passenger survival in aircraft crashes. NASA is testing this with the United Kingdom Royal Aircraft Establishment.



The Airbus-Boeing Battle

PARIS (IHT) — Bernard Lathiere is not a giant killer, but he has been very busy these last few years making a giant wince.

Director of a company unknown a decade ago, Mr. Lathiere now heads the number-two civil aviation builder in the world, Airbus Industrie — but he has some hope — and ambition — of one day making it number one.

And yet the giant, Boeing, which has built at least 3,797 jet airliners and has a firm grip on more than half c the world's civilian aircraft market, is ready to compromise with the upstart and concede it one third of the more than $40-billion market of short to medium-range airliners: a market that Boeing is entering with the full force of its experience and a new aircraft, the Boeing 767, as of 1982.

Large World Market

That year, Airbus will be marketing the A-310 version of its successful A-300, which is a plane very much like the new Boeing. Yet, the world market seems to be large enough for both, and both firms — apparently — have settled on what share they will have.

The long-awaited competition may thus oever come off or, if it does, be blunted and dulled from the start. Boeing claims it has designed its 767 mainly for the U.S. market and that it expects that most of its sales of the new plane, 1,500 aircraft by 1990, will be limited to that market.

Mr. Lathiere, who said that he cannot foresee what Boeing really has in mind, added that he would find it "strange" for a firm to make the large investment it is making in what is for Boeing a new concept of airplane and to decide in advance to limit it to the domestic market.

"I realize that the U.S. market is obout half the world total," Mr. Lathiere said, "but the U.S. share

(Continued on Page 12S)

Developing Engines to Fly on Hydrogen and Shale Oil

By David Bodanis

PARIS (IHT) — By the year 2000, propeller-driven airplanes that run on liquid hydrogen are likely to be parked at airports next to exotic SSTs that burn shale oil. The grounds for these developments are clear today, although the exact path they will follow is something top industry executives will be debating each day along the way.

When aerospace engineers are asked to develop an engine or airframe to fulfill new specifications, they usually plan either a modification of a current product, as has been done with the ubiquitous DC-9 and the major turbofan engines, or they start from scratch and try a completely new design. Evolution versus revolution. But this distinction has been blurred by a new development at Hamilton Standard, a division of United Technologies: What began as an improvement of jet turbofans ended up as a radically new turboprop that is expected to be effective at the near-Mach 1 speeds of current commercial jetliners.

The idea was to enlarge the spinning blades that are just inside the cowling at the front end of current turobfans. Larger blades would mean greater airflow and lower fuel consumption. Since such blades could not be fit inside current engines, the only solution was to hang the blades outside the engine, where they could spin freely. But once that was done, the engineers realized they had evolved themselves back into something resembling the 1950s turboprops.

This time around, however, turboprops will be able to compete with modern subsonic jets. This is because of improvements in propeller technology since the 1950s. Casting methods are better, and the blades, which will be set six or eight to an engine, can be very thin and curved back like a scimitar. This shape means that they will not lose efficiency when their tips go supersonic, as they do in tracing out the big arcs needed to pull a plane forward at Mach .8.

The new turboprops will yield important fuel savings. Studies by the National Aeronautics and Space Administration show that on trips for 700 to 800 miles, a 200-passenger airliner equipped with these engines would burn at least 20 percent less fuel than a contemporary jetliner. This translates into a savings on direct operating costs of about 10 percent. On trips for less than 600 miles, the fuel savings would be closer to 30 percent.

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One vehicle for which this reduced fuel consumption will be especially appealing is navy patrol aircraft, whose chief requirement is the ability to fly great distances at high speeds and then remain on station for long periods before returning to base.

Noise reduction is another merit of the turboprops. Simulations show the new turboprops will have a very favorable noise profile, especially on landings. This is when noise is most noticeable to airport neighbors because of the plane's long, slow, close-to-the-ground descents. Despite this, the noise reduction for passengers will not be very apparent. Much of the present cabin noise level comes from air hitting the fuselage and rushing around it.

This time around, however, turboprops will be able to compete with modern subsonic jets. This is because of improvements in propeller technology since the 1950s. Casting methods are better, and the blades, which will be set six or eight to an engine, can be very thin and curved back like a scimitar. This shape means that they will not lose efficiency when their tips go supersonic, as they do in tracing out the big arcs needed to pull a plane forward at Mach .8.

The new turboprops are expected to yield important fuel savings and noise reduction is another of their merits.

Hamilton plans the new turboprops for medium-size, short-range airliners used in trips of less than 1,500 miles. The reason is that on short trips airplanes spend much time slowly climbing and descending, which is where the turboprops will be most effective, and relatively little time on high-speed cruise, which is where conventional turbofans are most efficient. Lockheed and NASA are planning a joint in-flight test of Hamilton's turboprop sometime next summer, and production is intended for the mid or late 1980s.

A more conventional example of engine evolution is General Electric's CF6 family of high bypass turbofan engines. When the CF6 program was announced in 1967 it was intended to power the first generation of wide-body transports that were then just in the planning stage. Since that time new models of the CF6 have been continually developed from the original to serve a much greater range of aircraft. The CF6-80A version will power the new twin-engine Boeing 767, while there is a CF6-32 to power new 150-180 passenger twin-jets and 200-passenger tri-jets, and the CF6-45, which powers some 747s, will be in service with the new Airbus Industrie A310 jetliners.

The newer models keep all the essential CF6 characteristics, such as its basic fan design and modular construction, but they have undergone extensive modifications. The first CF6s had a static thrust of 32-36,000 pounds, while later models have gone up to a 55,000-pound thrust. The burning element in the turbine core has been changed to improve the air flow and reduce visible smoke, and the fan's airflow in the current models has been improved by more than 100 pounds econd.

Increasing Costs

But these developments might be greatly changed by the steadily increasing costs of aviation fuel. The most direct response to the oil price increases of 1973 has been NASA's Energy Efficient Engine (E3) program. This program's charter is to produce an engine by 1985 that will have a 12 to 15-percent lower fuel consumption than current engines and a 5-percent reduction in operating costs, while meeting the emission and noise regulations envisaged for the next decade.

The approach is one of applying clever engineering to existing techniques. A typical problem the E3 program faces is how to increase the heat and pressure at which an engine burns its fuel — thereby producing a more efficient use of the fuel — without creating conditions inside the engine so damaging that higher maintenance and purchase costs will counterbalance the savings in fuel. These and other problems are being overcome in steady fashion, and all aspects of the E3 engine are expected to be proven on schedule, with its peak development in fiscal year 1980.

A different response to higher petroleum costs is to shift to synthetic fuels. The United States Air Force, whose turbine engines use 232,000 barrels of oil a day, strongly supports this move. Even though aviation fuel can be stored for the initial stages of a war, the high cost of petroleum is already reducing the amount of flying hours for training. The pilots in some Air Force weapons systems are receiving 30-percent less training time than before the 1973 oil embargo.

Well Endowed

Because of this, the USAF is studying the engines that would be needed to use fuels derived from oil shale, coal and tar sands — resources with which the United States is especially well endowed. These new fuels would demand modified engines because they burn at up to 100 degrees Celsius hotter than current jet fuels. And fuels derived from shale or coal also have higher freezing temperatures than conventional fuel, which means they would be turned into nonpumpable slush at typical cruise conditions unless the fuel line is modified.

Despite these problems, Secretary of the Air Force John Stetson said in a recent address that "we anticipate worthwhile quantities of synthetic fuels to defense perhaps as early as the mid-1980s." He added that the Air Force plans to use its position as the single largest consumer of petroleum in the world, to provide a market large enough to support the start of a commercial synthetic fuel industry in the United States.

Still another response to high fuel costs is the development of liquid hydrogen as a fuel. According to the latest NASA study, a fourfold increase in fuel costs would make hydrogen economically attractive. Since the last six years have already seen one four-fold increase in jet fuel costs, this attraction might soon become a compulsion.

A number of tests have shown that present engines need only minor changes to burn hydrogen. The major demand of a hydrogen-burning engine is a new airframe to go around it, because liquid hydrogen is about three times bulkier than petroleum fuel. Also it requires cumbersome cooling systems: Hydrogen liquifies only at temperatures close to absolute zero.

A CFM56 high bypass turbofan engine is readied for testing before installation in a Boeing 707.

The most likely solution is to store the hydrogen in fuselage tanks. This would require a very broad fuselage, and give passengers a wider seating area, higher up on the plane. Another solution would be to put the hydrogen in enormous winglip tanks, which is something Lockheed has been investigating in wind tunnel tests.

Nuclear-powered aircraft have occassionally been touted as an answer to high fuel costs. In fact, the U.S. military studied atomic aircraft from 1947 to 1963. Its final decision was that it was unfeasible, and that decision is likely to hold. Aside from the practical problems of lifting extremely large chunks of lead and concrete into the air to shield the reactor, an atomic airplane may arouse precisely the public response to be expected from a Three Mile Island B-1.

Noise and Fuel

Work that is being done on more-fuel-efficient engines has reopened the question of a practical SST. Although Concorde has proven that a passenger market exists for supersonic travel, it has also shown that the noise and fuel consumption of supersonic crafts needs to be greatly reduced before an SST will be attractive to profit-oriented airlines.

A new type of engine could produce the necessary SST improvements, and several managers in advanced research programs believe that designs incorporating this engine will be in service by the mid 1990s. More importantly, a number of influencial British and American government advisers have suggested that they would support a large collaborative effort to build such an improved SST.

The breakthrough needed for a cost-efficient SST is the variable-cycle engine. This is an engine that would act as a high bypass turbofan for takeoff and slow flight and then be able to reconfigure itself into a straight turbojet for supersonic cruising. Whatever is used to reconfigure the engine would have to bear up under extraordinary interior temperatures.

The big three engine companies General Electric and Pratt and Whitney in the United States and Rolls-Royce in Great Britain, are doing exploratory studies on the variable-cycle engine. NASA believes it is the most promising approach for advanced SSTs and spent about $5 million in fiscal year 1979 on its development.

The variable-cycle engines are being designed for a craft that will have about twice the capacity of Concorde. McDonnell Douglas, for example, is planning a model that would seat 250 passengers six across. Having the same speed as Concorde, it would be built for a range of about 5,000 miles, or about half a continent more than Concorde's 3,350-mile range. One NASA study showed operating costs with the variable-cycle engine to be 56 percent less per seat-mile than the costs for Concorde.

If the variable-cycle engine's design is not sufficient to keep noise levels low enough, a noise-suppression nozzle fitted on the back of the engine might be needed. McDonnell Douglas and Rolls-Royce conducted a large-scale test of one such nozzle last year. It was designed to slow down the jet's exhaust, thereby reducing the impact it makes on the static air behind the plane. A softer exhaust impact means a softer noise. The engine noise was reduced by two-thirds, without any loss of performance, in a test of the nozzle under conditions duplicating the takeoff and landing of an advanced SST.

Hypersonic aircraft are also being considered by a few advanced-projects teams. These aircraft would cruise at Mach 6 at 100,000 feet. Technology from the space program has shown that it is possible to insulate a vehicle against the 2,000-degree Fahrenheit skin temperatures a hypersonic vehicle would encounter and to make engines that will power a craft to Mach 6. What remains to be shown is whether it can be made to be quiet on takeoff and economically practical.

One proposal is to build hypersonic craft with booster rockets; another is to build it as an air breather, with power coming from a ramjet burning liquid hydrogen. Still other designers speculate that hypersonic aircraft will never be built, and that instead there will be a jump straight from SSTs to larger space shuttles, with their ability to cross the United States in eight minutes.

In all these speculations, there is the constant problem of believing that what can be done is what will be done. For example, vertical takeoff or landing craft were uniformly anticipated in the mid 1960s, until it was realized that they would not reduce the size of airport car parks or maintenance facilities very much and that travelers prefer just one or two airports per city for ease of transferring.

A final caveat came up in a study one major airline did to determine if its passengers would accept flying in turbo-props. The responses were neither negative or positive. For most passengers explained that they were only interested in being flown "somehow," with such details as the kind of engine used being irrelevant.

The many missions of Raytheon.

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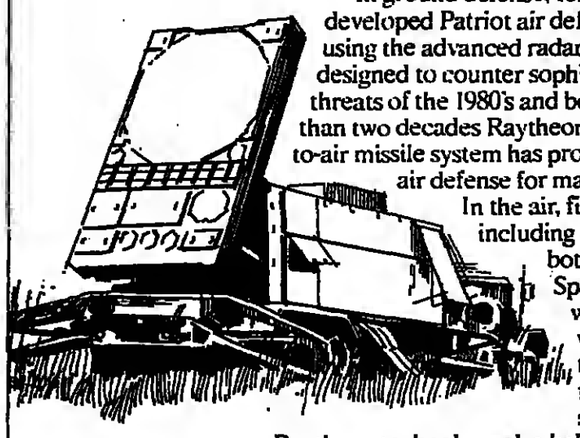

In the air, first line aircraft—including the F-14 and F-15—carry both the Raytheon-developed Sparrow AIM-7F missile and the Sidewinder AIM-9L missile, for which we produce the guidance section. Sidewinder AIM-9L also flies with the F-16. Both are scheduled for the upcoming F-18.

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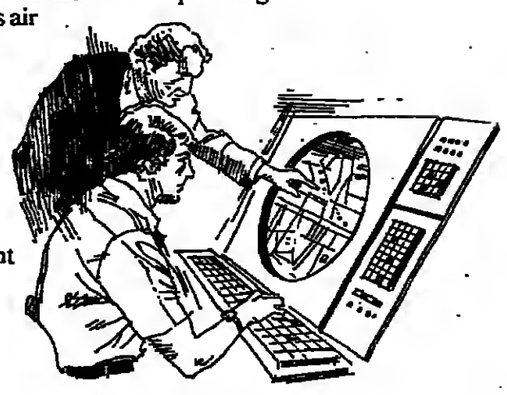

These are just a few examples of Raytheon's wide-ranging capabilities in meeting government requirements. For the complete story, please write for our new brochure: Raytheon Company, Government Marketing, 141 Spring Street, Lexington, Massachusetts, U.S.A. 02173.

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Attending the Paris Air Show? *Visit the Raytheon exhibit and see the advanced Patriot radar, a new troposcatter radio system, our four-color display, and the new RAYTAB information processing system.*

Waiting for the Weather, a Prelude to Leisure Flying

Airplane enthusiasts gather daily: They are housewives, doctors and lawyers, engineers and bureaucrats, carpenters and assembly-line workers.

By Linda Bernier

ARIS (IHT) — About a dozen small one and two-propeller lanes sat poised on the grass of tiny airfield at St. Cyr, just out Paris.

oie Rodier, 20, paced impa- ily around the five-room club se, and Michelle Berthet, 50, ted idly with a group of mer ging around the bar while sever- thers gathered around the tiny trol room, looking hopefully at ther reports and flight plans.

Everything is ready. We're just ting for the weather to lift," said Rodier, waiting to take part in flight competiiioo to qualify to participate in the annual r de France for young pilots.

irplane enthusiasts gather daily t. Cyr to take off in one of the ield's 108 planes for a 15-min- flight around the airfield or, if r pocketbooks permit, a week- trip to Deauville, Bordeaux or South of France. They are sewives like Mrs. Berthet, who es part-time jobs as a piano ac- pianist or secretary to pay the to $50-an-hour airplane rental and students like Mr. Rodier, makes extra money as a hotel rd or bank clerk. They are doc- and lawyers, engineers and eaucrats, carpenters and assem- line workers.

here are 12 air clubs at St. Cyr e and 450 at the 400 airfields of gence. Unlike the United States, t Germany or Switzerland, re companies and businessmen airplanes to get from one ap- atment to another, leisure flying es up the bulk of general avia- in France.

bout 90 percent of the 6,000 ate airplanes in France are sin- motored craft. In the United es, which has about 200,000 es, 16-17 percent are more so- ticated multipropeller planes or ojets, according to Jean-Louis et, who is responsible for aero- ical training at France's Direc- General de l'Aviation Civile.

Pleasure

ritain (with 4,000 private aft), Canada (15,000), Brazil 0) and Spain, South Africa Switzerland (each with about 0) also use their planes more France for business rather pleasure, Mr. Jamet said.

Because of France's small, well-developed commercial transportation system, the centralization of business activities around the Paris area and adverse weather conditions, most businessmen do not feel the need to own airplanes, said Mr. Jamet, noting that only a few companies, such as Peugeot-Citroen and Michelin, have their own airplanes.

Private airplanes are also used by nbout a hnndred small-airplane taxi companies in France. And they are used for emergency assistance. For n nominal fee, one company, Europ Assistance, flies ill-stricken travelers back to France with a doctor nboard the plane. If a fire breaks out in the dry region of the Midi, the government's civil protection agency will send one of its 12 amphibious Canadian-built planes to extinguish the blaze.

But most private flying in France is done for pleasure. "Unlike golf, which is a sport of the upper classes in France, even modest-income people go flying," said Mr. Jamet.

"This is because of an old government policy which encourages popular aviation."

The government, foreseeing the need for trained pilots before World War I, began to provide widespread aid to private, nonprofit air clubs in 1936, he said. Although such aid has since diminished, the government still provides nbout $2.5 million a year to French air clubs and $450 scholarships for youngsters interested in flying.

While the government has schools for commercial and military pilot training, most private flying is taught by the air clubs. As in other countries, a minimum of 40 hours' flying experience and passing a theoretical and practical examination are required to obtain an elementary pilot's license.

Mr. Rodier began flying at the age of 16 with a government scholarship. For two years, he spent six weeks during the summer at a provincial airport, flying gliders, then one-propeller planes.

"I want to become n professional pilot, either for the military or a commercial airline," said Mr. Rodier, whose fnther and brother are nlso pilots. Another brother, also a pilot, was killed in a airplane accident.

Accidents

The accident rate in France is relatively high, said Mr. Jamet. In 1978, there were 83 deaths, 10 per 100,000 flying hours, compared with the U.S. rate of five deaths per 100,000 flying hours.

Mr. Jamet believes this high rate is due primarily to the lack of training in France to handle adverse traveling conditions and of sophisticated flight service stations.

Adverse weather conditions in France are another major reason for flying accidents, he said.

Fly Anyway

Joseph Blond, president of France's oldest airclub, the Aero-Club de France, says accidents occur because of the French character.

"The French are not disciplined," he explnined. "Instead of asking for weather conditions and advice, they will go and fly nnyway. Or — to show off and say hello to their girl friends or parents — they will fly too low and crash into a tree or telephone pole.

"There are those who fly with instruments and those who fly with the seat of their pants. And most old French pilots fly with the seat of their pants," said Mr. Blond, who has been flying for 40 years.

The Aero-Club de France was established in 1898 to encourage the development of aviation. It sponsored some of the dramatic breakthroughs in aviation history, such as the 1909 crossing of the English Channel by Louis Bleriot. Until 1973, it was responsible for issuing the private pilot's license. Today, it represents France before the International Aeronautical Federation, sponsors a variety of aeronautical competitions and controls world aviation records made on French soil.

According to Mr. Blond, there are fewer and fewer young pilots in France today and air clubs are looking for members. The major reason is the increasing cost of instruction — about $3,000 for an elementary pilot's license — and the increasing cost of fuel, he said.

Enthusiasts

Most people start flying between the ages of 25 and 35, after they have begun to establish themselves in life and after they have been married for some time, he said. He jokingly added that flying has been the cause of many an argument between airplane-impassioned husbands and jealous wives. There are only about 450 women pilots in France, he said.

Mrs. Berthet is one of them. After taking her first airplane ride at the age of 15 with her father, a pilot, she wanted to fly herself. But the high costs and a husband's opposition prevented her from learning. Then, at age 35, with insurance money from a car accident, which convinced her husband that flying was no more dangerous than driving, she took her first lesson and has been flying ever since.

"I love to fly just for the joy of flying," she said. "But I especially love flying over my hometown in Bourgogne or by the sea near Dieppe."

Her son and daughter are also flying enthusiasts.

There are 25,000 private pilots in France who put in an average of 800,000 flying hours a year, while in the United States about 350,000 pilots fly about 36 million hours a year.

But there are fewer traffic problems. Traffic is more segregated in France than in the United States, said Mr. Jamet, pointing out that while private and commercial aircraft can land at large airports in New York and Chicago, Orly and Roissy outside of Paris are reserved for commercial aircraft and Le Bourget is reserved for business aircraft.

Public Airports

Compared to the 12,000 U.S. airports, there are only 600 public and private airports in France, and about 85 of the 400 public airports are reserved for commercial traffic.

Many of the light, single-propeller, single-motor airplanes used in France are French-built — by Avion Pierre Robin or Socata, a subsidiary of Aerospatiale. A subsidiary of Cessna of Wichita, Kan., which has a plant near Reims, is 51-percent French-controlled and represents half of France's light-aircraft production — about 700 planes a year.

The United States, which produces 17,000-18,000 general aircraft a year, is France's largest competitor.

But after the planes are built, the pilots are trained and the air clubs are organized, there is still one factor neither France nor any other country has yet learned to control.

"Bad weather," complained Mr. Rodier. "It's canceled many trips for me."

"You just have to have a lot of patience to fly," said Mrs. Berthet, looking outside ot the overcast Parisian sky.

Kevlar Expands Use in Reinforcing Aircraft

By Paul Williams

WILMINGTON, Del. (IHT) — The aerospace and aircraft industries are making rapid gains in efficiency and economy on the strength of developments in other areas. Chemicals seem far removed from aerospace but the leading chemical producer in the United States, E. I. du Pont de Nemours & Co., is stepping up production of a fiber — "Kevlar" — which is finding increasing applications in an apparently alien arena.

Kevlar aramid is a high-performance fiber that was introduced in 1971 as a yarn for tire reinforcement. The trademark Kevlar was adopted in July, 1973, and since that time the uses of this versatile fiber have proliferated especially in the manufacture of aircraft.

The worldwide growth in demand for Kevlar has been so great that Du Pont, announced on May 24 that it would triple its anoual capacity to 45 million pouods by expanding its plant at Riebmond, Va. Completion of the expansion was set for early 1982.

Kevlar aramid is a product that is increasingly used as a plastic reinforcement in many areas previously served by fiberglass. According to Du Pont, it has superior durability to both fiberglass and graphite in terms of impact resistance, fatigue life and crack propagation.

Long Durability

Du Pont, based in Wilmington, Del., maintains that the Kevlar aramid fibers are more than five times stronger than steel on an equal-weight basis, a toughness the company says has never before been attained in a natural or man-made fiber.

The giant chemical producer also says that it takes three pounds of aircraft fuel and engine to raise ooe pound of payload off the ground — an example of just how important a lightweight composite fiber can be to the aerospace and commercial aircraft iodustries.

The advantages, stresses Du Pont, are even more dramatic for spacecraft, where this ratio increases to more than 20 to 1. Weight reduction, therefore, results in lower fuel consumption, higher payloads, greater range, or nny combination of tbese factors.

The range of the Trident missile, for instance, has been extended greatly because of the reductions made possible in the filament wound rocket engine cases.

Commercial aircraft use a substantial amount of reinforced plastics in interior finishing and trim, and in exterior fairings. Examples would be parts on the Lockheed L-1011, the Concorde SST and the Dehaviland DHC-7. Use of these plastics can result in weight savings of up to 30 percent compared to similar glass parts.

Other major aircraft — and helicopter — manufacturers are adopting Kevlar 49 for semistructural and structural applications such as flooriog, doors, fairings, seats and fuselage skins.

The first major user of Kevlar 49 aramid was the L-1011, which uses some 1,300 pounds of the aramid. Initially, Kevlar was used only in cabin interiors of the first aircraft built in the early 1970's but now it also is used in exterior sections. Du Pont says that Lockheed plans to use Kevlar more extensively on new extended-range aircraft to further reduce weight.

Fiber in Doors

The Sikorsky Black Hawk and S-76 helicopters use about 600 pounds of the material and about 500 pounds are used in the DeHaviland DHC-7. The Black Hawk, is a utility tactical transport designed to meet mission requirements of the United States Army. At least 80 pounds of weight savings are realized by using aramid fiber in the doors, the tail rotor sbaft, cover, stabilizer and instrument panels. An additiooal 30 pounds are saved by the use of ballistie armor of Kevlar in the pilot's seat.

Du Pont says major amouots of aramid fibers are expected to be used by the Boeing Company in its 767 and for the European A-300 Airbus.

The jet-set businessman also will benefit from Kevlar. For example, the Canadian Challenger executive jet has 292 parts reinforced with aramid fibers including the wing, wing tips, radome, fairing on top of the tail fin, tail cone, landing gear doors, fresh air ducts and a number of other components amounting to a total of 235 pounds of the fiber.

In the aircraft industry, the Kevlar aramid fibers are not limited aircraft components. Because of its toughness, Kevlar 29, a companion Du Pont product, is used in aircraft ejection parachutes and is being evaluated for use in aircraft escape slides.

These escape slides, Du Pont says, are proving to have superior tear resistance, higher resistance to stretch and lower thickness and weight than the nylon currently used in slides. Perhaps more importantly, the company points out, is that escape slides made with urethane or neoprene-coated aramid are inherently flame resistance, which adds to safety during emergency evacuations. These slides also are much easier to repack after inflation testing than nylon slides.

The high tensile strength of Kevlar 29 yarns also has been found useful in parachute component materials where reductions in weight and bulk are critically important. Du Pont says a variety of tapes, webbings and braided cords of Kevlar 29 have been developed that have the same strength, but weigh only about 30 to 40 percent as much as their nylon counterparts.

Ribbon parachutes have been made to equal dimensions and equal strength using components of all-nylon and all-Kevlar 29. The parachute made of Kevlar 29 weighed only one-half as much and required half the storage volume as the nylon parachute.

Kevlar 29 is also being used in drogue parachutes — those towed behind aircraft for their drag effect — as components in personnel parachutes and in weapons-delivery systems.

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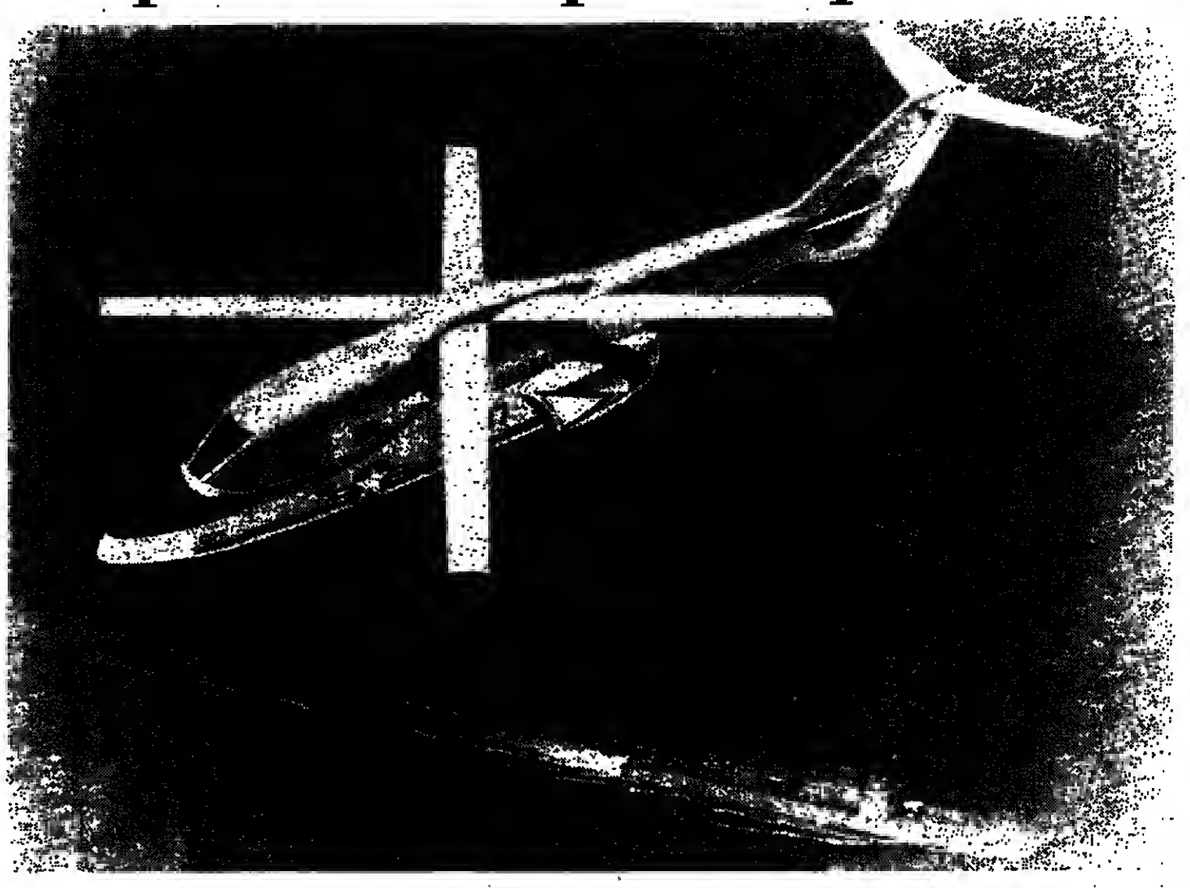
Helicopter Plus Airplane Equals X Wing

By David Bodanis

PARIS (IHT) — Attempts to merge the helicopter with other aircraft began even before the helicopter was invented. In 1928 a biplane took off from Le Bourget with a freely spinning rotor on top, and a terrified reporter from this newspaper io the back seat. Once the plane was several hundred feet up its intrepid pilot nventor turned off the engine and the plane began to sink. its fall slowed, somewhat, by the spinning pinwbeel rotor on high. It hit the ground hard enough to bend the landing gear out of shape, but lightly enough so that the journalist was able to clamber out and wonder why anyone would attempt to improve on the Wright brother's simple design.

The experience has been repeated couotless times, as two basically different aviation designs have been merged, with the intent being to acquire tbe advaotages of both, but the outcome, with a few notable exceptions, being the diminished functioning of both. Conventional airplanes have bad their engioes shifted, wings tilted, or thrust redirected, all to provide the vertical lift and hovering capabilities of helicopters.

One of the latest, and most promising, attempts to combine a helicopter's maneuverability with an airplane's range and speed is the X wing being developed at Lockheed. The name does not protect a mystery, but describes the plane's configuration. The craft looks somewhat like an attack helicopter as it lifts off by the power of a rotating blade and builds up speed. Once it has reached about 200 miles per hour, however, the pilot can lock the helicopter propellers to form an X over the top of the craft.



Artist's conception of the proposed X wing aircraft, combination helicopter and jetplane.

Turbines Redirected

When the helicopter blades are locked like this the two turbines driving tbe spin of the blades are redirected to act like normal jets. This provides the needed thrust and leaves only the matter of the needed lift. This is supplied by the helicopter X blades, which have been designed so that in locked position they cut the air just like the airfoils on a normal wing and generate enough lift to keep the craft flying.

In this position the plaoe can reach 500 or 600 miles per hour, much above what any helicopter can achieve. The plane can continue like this and land on a runway with fixed wings. Or the X wings can be allowed to start spinning when the plane slips under 200 miles per hour, bringing back the helicopter effect and allowing a properly symmetrical vertical landing.

According to Air Force Col. Norris Krone Jr., government program manager of the X-wing project at the Defense Advanced Research Projects Agency in Washington: "This X wiog is absolutely unique. No ooe else is working on it, and io view of our wiod tunnel tests at the Ames Research Center we believe we can develop the X wing to almost any size asked for."

The first prototype is expected to be ready within two years and will be about 35,000 pounds, with a cargo capacity of 8,000 pounds. First applications are expected to be for search and rescue missions and for troop transport.

The engineeriog concept, which allows the X wing to metamorphize so strangely, was developed at the Naval Ship Research and Development Center and iovolves careful control of the laminar flow over the overhead wing blade. These blades are actually hollow ducts, through which the turbines send compressed air, to be let out in carefully measured doses. The flow of this released air over the blades is calculated to ensure lift when the craft switches from its helicopter to its airplane mode. Since the X wing lacks ailerons, the controlled air flow out of the blades is also used to provide lateral control during high speed flight.

NASA has provided the testing facilities for the X wing, and the Defense Advanced Research Projects Agency is handling the adminstration. The actual research and constructiuo is being done by Lockheed-California, the branch of the Lockheed corporation that produces the U-2 and the SR-71.

NASA is also testing another vehicle with a swivelling top wing. It is called the AD-71 and is a small jet-powered aircraft being used to study the possibilities of tilting an overhead wing to increase fuel economy at high speeds. At low speeds the wing is kept in tbe normal position at right angles to the fuselage. For high-speed operations, however, the wing is pivoted fore and aft to form tight wing angles of up to 60 degrees. As the aircraft flies faster, pivoting the wing to a sharp angle decreases air drag, permitting increased speed aod longer range for the same fuel expenditure.

Goodyear Aerospace also is trying to join the advantages of a helicopter to that of another air vehicle. After the oil embargo of 1973 Goodyear began research with NASA on a vehicle that would act as a super-helicopter with greatly reduced fuel needs. Their first idea was to attach four of the large CH-53 Sikorsky helicopters to an H-frame, and then fix the frame to the bottom of a large helium filled balloon. If the balloon were large enough it would hold up the helicopters, allowing all the helicopters' fuel to be used for lifting cargo.

The design was improved by shrinking the four helicopters to mere helicopter modules, containing only rotors and the turbines needed to drive them. The four modules are held evenly around the big balloon by a rigid frame, at a height just under the balloon's midline. The whole thing is called a heavy-lift airship, or HLA.

Wind tunnel tests show that the HLA will be able to lift 75 tons of cargo, which is over four times the capacity of the largest helicopter currently available. HLA could carry its maximum cargo at least 200 miles, and could carry lighter cargoes up to its maximum range of 3,500 miles. Its fuel costs in operating tons ile are expected to be 4 percent that of a conventional helicopter.

New Market

Since the HLA opens up a new market it will not be in competition with current large helicopters. Sikorsky is in fact the largest subcontractor on the venture. The helicopter modules around the balloon will be a hodgepodge from Sikorsky larger models. Sikorsky's part will range comprehensively from the 60-foot rotors to the ceotral gearboxes.

One of the biggest difficulties the HLA faces is popular misconceptions about airships. Balloons are often thought to be subject to instability from sidewinds. On top of a rather large inertial stability, the HLA will have sensors all around its surface to detect shifts in wind direction. Processed by an onboard microcomputer this data will be used to redirect the helicopter pitch as needed. The sensors are the same as those used on VSTOL aircraft, and can detect winds of as low 2 miles per hour.

Several military and construction ageneies have expressed interest in the HLA. The U.S. Forestry service would like to use it for moving timber from forests in areas where roads would be too expensive and too damaging to the ecology.

Goodyear Aerospace plans to market the HLA in the mid 198[illegible] at a price of around $33 million. An in-house marketing study showed worldwide demand for such heavy lifters, and a U.S. government survey found demand for 1,000 heavy lifters worldwide.

Ghandour at the Controls of Alia's Profits

AMMAN, Jordan (IHT) — Over the past five years, while the world's airlines were averaging 6-percent growth, Alia, the Royal Jordanian Airline was expanding at a 31-percent rate — better than five times the world average.

At the management controls of Alia's operation is chairman and president Ali Ghandour, who was given King Hussein's full support 15 years ago to start the airline.

Not only has he guided Alia to success. In recent years he has become an active leader in an effort to form a consortium of Arab carriers to the United States. Since July, 1977, Alia and Syrian Arab have been flying a joint service from Damascus and Amman to New York and soon Mr. Ghandour expects several other airlines to join.

Alia's service on the trans-Atlantic service suggests Mr. Ghandour knows wbereof he speaks. From about 1,000 passengers in its first month of operatioo in July, 1977, Alia built its passenger total to average more than 5,536 in July the following year.

Among other Ghandour additions to Alia are Arab Wings and Arab Wings Flying Ambulance, which is run in partnership with the Malhas hospital in Amman.

Since its inceptioo in 1975, Arab Wings, the Amman-based executive jet charter company has sought a pan-Arab image in both operations and ownership.

Recent proof of the success of this policy was the boice of Arab Wings to carry the Secretary General of the Arab League, Mahmoud Riad, on his extensive diplomatic missions to all Arab couotries seeking to bridge differences of opinion and convene an Arab summit.

While any national airline of Arab countries would have carried with Mr. Riad the political overtones of their country's policy, Arab Wings successfully fulfilled the requirements for oeutrality.

Air Show Has Record Number of Planes

(Continued from Page 7S)

hibits — is the name of the firm that is showing the most different types of planes — Cessna.

One of the leading U.S. manufacturers of small aircraft, those that fall under the category of executive, busioess, tourism, liaisoo or training planes, Cessna will show 18 different aircraft at Le Bourget, including two — the C-414 a Chancellor, six-seat twin engine, and the TR 182 RG Skylane Turbo, single engine four-seater — for the first time.

Cessna's major participation at the Paris show becomes clear when seen in light of the statistics. The United States produced 19,600 units of general aviation aircraft last year, of which it exported 3,500 units. This means that 80 percent of business and sports aircraft oow flying throughout the world are U.S. made, while 10 percent come from Western Europe.

East Bloc Share

Another share of that world market for light planes is taken up by Eastero European countries, Poland, Romania and Czechoslovakia, which are also showing their training, tourism and agricultural aircraft at the show.

Cessna, will bave even more planes at the show than the French firm Aerospatiale, the makers — with British Aircraft Corp. — of the world's only operational plane of the future, the supersonic Concorde. Aerospatiale's display includes only 14 aircraft, most of these helicopters, and only two among them that are oew.

The French firm Dassault is the third io line for sheer number of aircraft at Le Bourget, with 12 planes. Although, characteristically for the 1979 air show, about half of these planes are business, liaison or reconnaissance aircraft of the Mystere Falcon family, Dassault is most boastful about its newest jets, the Mirage 2000 and the Mirage 4000. The 4000, powered by twio Snecma M53-2 engines, Dassault says, flew for the first time March 9, and thus will be the newest — and most modern the firm insists — combat plane in flight at Le Bourget. The company does not hesitate to claim that the 4000 will outclimb and outmaneuver anything flying today, and particularly the McDonnell- Douglas F-15, which is the mainstay of the U.S. Air Force and is often referred to as the most sophisticated air-superior aircraft in operation.

Peaceful Aims

The F-15 will not be at the show, again to de-emphasize the bellicose aspects of U.S. aircraft industry and to accentuate, following the desires of the White House, the more peaceful aims of the United States.

Yet, the General Dynamics F-16, the plane that won the "Arms Deal of the Century," will be at the show and flying, showing the remarkable flexibility io the air, which played no little role in its overcoming all competition io 1975.

That competition — now part of history — pitted the F-16 against a Dassault F-1, since replaced by the company's 2000 aod 4000 and against Sweden's SAAB Viggen Mach 2 combat plane.

The canard configuration Viggen will be back at the air show in what SAAB said would be an improved model, and it will be one of the few combat planes — much fewer than in previous years — showing what it can do to a professional and non-professional public.

For there will be no Soviet combat planes — but six Soviet aircraft including the STOL Antonov 72 for the first time — at the show, in keeping with the ioternational industry's less military approach. Even Israel, whose Kfir, home-made fighter plaoe struck the imagination at the last show, will not be present at Le Bourget. Nor will Italy show its combat planes but limit its flight demonstrations to civilian craft.

Vertical Take-Off

Britain, however, whose British Aerospace Company makes the West's ooly vertical take-off combat plane, will be demonstrating the extraordinary ability of its Harrier. And, for the first time, it will show its Sea Harrier, a naval version of the aircraft that has been in operation with the U.S. Marines. And West Germany will be showing agaio what its Multi Role Combat Aircraft Tornado can do. As Argentina will do, with its IA 58 Pucara, French engined twin jet. But Italy, Switzerland, Poland, Spain and many other nations will limit their flight demonstrations to some of their numerous military trainiog planes.

The military combat role seems to have been taken over by helicopters, which are being shown in unprecedented numbers at the show and some of which will demonstrate the varied applications of the rotary wing aircraft — from tankbusting to combat to search, evacuation and even for civilian executives.

For those who like to think of airplanes as they once were — even balloons, for there will be a Montgolfiere at the show — the Flight Museum will allow visitors to compare the size of several planes including one that was once the giant of the air, the B-17 of World War II. The B-17 was recently retired after having flown for more than two decades after the war, at the service of the French National Geographic Institute which used it to photograph the entire surface of the nation.

Philatelic Touch

The air show opens today for the press, but will be inaugurated tomorrow by French President Valery Giscard d'Estaing. That day will also be a day specialized for stamp collectors, during which sales and trade of stamps dealing with aviation will be featured.

Sunday will not carry a special feature, but Monday will be devoted to aerospace medicine and Tuesday to the electronics industry and its application to aerospace. On Wednesday, French equipment manufacturers will have organized visits to their stands and on Thursday a seminar will be held on special steels and alloys io aeronautics.

Flight demonstrations will be highlighted on Saturday, June 16 and on the last day of the show, Sunday, Juoe 17.

The show is open to professionals every day as of 9:30 a.m. and to the public as of 12:30 p.m. except for this Sunday and next Saturday and Sunday, when it will be open to the public all day. The entry fee for the non- professional public is 20 francs.

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Japanese Plan for Independent Aircraft Industry by 1990s

By Rene Lebowitz

'OKYO (IHT) — Japan has set its sights on an independent nestie aircraft industry by the l of the next decade.

japan's Ministry of International ide and Industry, the architect this country's successes in such erse fields as cameras, steel and, st recently, computers, plans to se the domestic industry from its sent stature of a technologically ckward assembler of U.S.-de-ned military hardware to a full-dged independent maker of com-rcial jets.

The prewar industry, which at e time employed a million work-and turned out thousands of hter planes, four-engined flying ats and even rocket planes made German designs, was scrapped er Japan's defeat in World War Revived by the U.S. Occupation rces in order to help maintain craft during the Korean War, the lustry was for many years de-ident on U.S. military contracts ore becoming the main supplier mostly U.S. designed craft for air arm of the Japanese Self-fense Forces.

The MITI formula is no different m those used by Japanese gov-ment agencies to bring in for-n technology in the past 100 rs. The ministry has set up the vil Transportation Development rporation with the participation the three largest of Japan's five craft manufacturers. The govern-nt is to supply 50 percent of 33.5 lion yen (160 million dollars) in pital, and the know-how is to me from the Boeing Co.

Repurchases

One industry source in Tokyo d the purpose of the exercise is make up for the time Japanese nufacturers lost since the last -11, a short-range, 60-passenger boprop, rolled out of the hang-of Mitsubishi Heavy Industries l. in 1972. Just less than 180 of planes were built at what has en described as disastrous losses. nically, they have become popu-in their old age, and two Japa-e domestic airlines have repur-sed 156 of the planes in the past years from Brazilian and Phi-pine carriers. YS-11s sell for uble their original price as they highly valued for their fuel nomy and low noise.

Even before YS-11 production halted, MITI already envi-ned a YX jet to replace the YS-which had also been a brain-ld of MITI planners. The YX ncept has undergone several nsformations since its inception 1966. Originally conceived as a rrow-bodied jet transport capa-of carryng 100-150 passengers and possibly built with British Aircraft Corp. cooperation, the plane has finally taken shape as the Boeing 767, a joint U.S.-Italian-Japanese product.

The Japanese have made no attempts to hide their intention to absorb as much foreign technology as possible. One economic perodical said of the plan: "It is expected that superior technical know-how not only concerned with development and manufacture but also with the operation of YX planes will be introduced to Japan as the joint development with Boeing progresses."

MITI's domestic critics argue that the 15-17-percent Japanese participation in the billion-dollar project will not be sufficient to provide Japanese manufcturers with the technology required to build planes on their own. Last Sept. 22, one day before the signing of the basic agrement in Seattle signaling the start of the YX project, the mass-circulation newspaper, Yomiuri Shimbun, editorialized: "As it is no longer a joint venture, Japan's influence over the project is very small, and it will be difficult for Japan to obtain technological information arising out of the project that it orginally planned to acquire in return for the billions of yen invested."

Scaled-Down Role

Eight years ago, when the YX grew to jumbo size, Japan wanted Boeing to agree to a 50-50 arrangement. Talks broke down in the mid-seventies. When the project was revived, it was with a scaled-down role for Japan and the added participation of Italy.

Mitsubishi is to build n secuon of the rear portion of the fuselage and the cargo doors, Kawasaki Heavy Industries Ltd. part of the wings and Fuji Heavy Industries Ltd. the wing mountings.

Boeing's interest in allowing the Japanee and Italians a share of its know-how is to insure that the two countries encourage their carriers to purchase the 767, as opposed to other U.S. wide-bodied jets or the Airbus. The 767, a 220-230-seat, twin-engine design, is to be followed by the 777, a tri-jet of slightly larger capacity.

Another stage of MITI's plans for the industry calls for the construction of the YXX, a replacement for Boeing 707s and McDonnell Douglas DC-8s. As the Japan Economic Review reported this April, immediately after the MITI-inspired Civil Transportation Development Corp. set up a subcommittee charged with the project, "MITI hopes to utilize the know-how secured by buiding the YX promptly in contructing the YXX and by doing this, raise Japan's aircraft industry at a stroke to a high international level".

This time, the Japanese want to put up a full $1 billion, and MITI is said to be looking for a suitable foreign partner for a true 50-50 venture. Other MITI-backed projects include a project in short takeoff and landing (possibly with Canadian participation), a small 40-seat, jet-powered flying boat and a number of futuristic lighter-than-air craft, including one intended to replace large helicopters at construction sites.

The ministry is also reported to be encouraging the construction of light planes. As of last year, there were only 860 light planes in Japan, with about 400 in service, compared with 185,000 in the U.S. MITI plans foresee a domestic market for 3,000 to 4,000 light planes if licensing laws are relaxed.

Mitsubishi is up to its third version of the MU-2, a twin-engined, executive-model turboporp that seats 11 and is capable of slightly less than 600 kmph. Mitsubishi has also started test flights of a twin-engined executive jet, while Fuji, developers of the single-engine, four-seat Aerosubaru, the F-200, has started production of a two-engined light plane. More than 50 MU-2s have been produced and slightly fewer F-200s.

MITI is reported to be encouraging Japanese auto manufacturers to consider branching into the light-aircraft field.

The ministry's setting up of the CTDC is seen as an attempt to steer the industry away from its more than 80-percent dependence on military orders. Profitable production of military aircraft has not been possible on a large scale because of an unwritten rule pegging military spending at less than 1 percent of the gross national product. Although Japanese companies have come up with unusual products, no Japanese military plane can be produced in sufficient numbers, partly due to the unpopularity of the military at home and partly to the strict ban against exporting weapons.

Mitsubishi's F-1, a Phantom-like fighter-trainer, was not even considered in the running for the Self-Defense Forces' next generation of mainstay fighters. Of the 100 F-15s for Japan, 23 will be built in Japan by Mitsubishi and others will be assembled on a knock-down basis. Kawasaki is to participate in the construction of the 45 P-3C Orions that Japan ordered from Lockheed under a similar formula. The PS-1, a locally designed four-engined flying boat of which 18 have so far been made by Shin Meiwa, was passed over in the race for the forces' principal anti-submarine surveillance plane. A total of 23 PS-1s capable of landing on rough seas are to be made. One has already been converted to fire-fighting while others are being used for search and rescue.

Manufacturing jet engines is another field MITI intends to build up. The YS-11 was powered by Rolls-Royce equipment, and the production of the 767 engine calls for no technology transfer to Japan. MITI's Industrial Science and Technology Agency is reputed to have given the go-ahead for the development of an aircraft engine with Rollys-Royce's help. IHI, the producer of U.S.-designed jet engines for Japanese-assembled fighter planes, Mitsubishi and Kawasaki are to participate, with the financial backing of the Japanese and British governments, in the production of the 18,000-pound-thrust engine.

In all likelihood, the British-Japanese jet will be used to power the YXX.

U.S. Airline Deregulation Boosts 'Sky Commuting'

By Paul Williams

NEW YORK (IHT) — What promises to be one of the major trends in United States airline history — increased service to small communities — came to light this spring when the Civil Aeronautics Board released its first study of the airline industry since the deregulation bill became effective last October.

Service to these communities reflects the growth of commuter airlines, which are gaining a foothold as bigger carriers shun the hinterlands.

The comprehensive 117-page C.A.B. report showed that small towns are benefiting from this trend, which appears to have been spurred by a proliferation of prosperous local economies and the fact that larger airlines nevertheless have found many cities uneconomical to service.

Rising fuel prices, stricter enforcement of the 55-mile-an-hour speed limit on automobiles and the recently settled strike at United Airlines have all served to buoy commuter-line operations.

More Latitude

Deregulation, which gives airlines more latitude to enter and leave markets, has spurred rather than curtailed service to many out-of-the-way municipalities, putting critics of deregulation on the defensive.

Although departures from small city airports indeed are multiplying, the rate of increase — at 5.2 percent in the 12 months ended February — still trails the pace of the rise of takeoffs from cities of all sizes, which was up 8.4 percent in the period, the C.A.B. report said.

The study uses hub cities as its basic unit of measuring air-passenger traffic. Large hub cities are those that account for at least 1 percent of all airline passengers, medium hub cities 0.25 percent to 0.99 percent and small hub cities 0.05 percent to 0.24 percent. Non-hub cities accounted for less than 0.05 percent of all passenger traffic.

The various categories — all of which showed departure increases — broke down this way. Large hub cities, up 9.1 percent; medium hub cities, 10 percent; small hub cities, 8.4 percent; non-hub cities, 5.2 percent.

According to analysts, the new mini-carriers with such catchy monickers as Gem, Big Sky and Cascade, represent a third generation of airline service, trailing the mail carriers of the 1930's, and the regional airlines of the 1950's and 1960's.

Some Complaints

Commuter-line aircraft range from 15-to-19 passenger twin engine turbo props with cruising speeds of about 300 miles per hour, such as the Beech 99 to the 91-passenger Swearingen Metroliner.

Many cities have lost some service in the wake of deregulation, making the C.A.B. the target of complaints from residents of many of these towns. In fact, the study lists 260 that lost some service — mostly in the small to medium size towns — in the period ended February.

Martha's Vineyard, Mass., the bucolic New England resort that depends heavily on its air service from New York for its weekend residents, is a prime example. It had 12 percent fewer departures in the 12-month span as measured by the C.A.B.

Some of the cities that experienced service cutbacks were far from small. Departures from Columbus, Ohio, were off 2 percent in the period; Rochester, N.Y., experienced a 5.1 percent decline, Oakland, Calif., an 8 percent drop and Providence, R.I., a slippage of 10.6 percent. Proving that gambling is a big business, Atlantic City, N.J., casinos are rolling in patrons and rolling up profits. It showed a whopping 141 weekly takeoffs in February this year, nearly double the number registered in the corresponding month of 1978.

The legendary boardwalk city, which is in the midst of a much-needed rejuvenation, was one of 300 American cities that gained service in the 12-month span. They ranged from biggies such as New York City, which showed a 6.7-percent rise in weekly departures in February — 7,369 versus 6,906 — to 'where's that any way' Texarkana, Tex., with 105 departures up from 32 in February a year ago.

The commuter lines have experienced considerable growing pains as more and more of them have come to the conclusion that the larger planes are safer and therefore easier to fill. This has led to a strong demand for the Convair 580 and the Fokker F-27. These twin-engine planes had been out of favor when many regional companies shifted to jets.

Since these airplanes are in short supply, some of these commuter airlines have ordered a number of the Swearingen aircraft.

The ever-busier commuter lines have caused still another problem. The airports these lines are using are strained to capacity in some cases and passengers complain that service is deteriorating.

In addition, some experts are concerned that the scarcity of aviation fuel will cause involuntary restructuring and seriously curtail the trend to greater service to small communities.

But for now, at least, the small airlines are flying high and so are the Chambers of Commerce of a thousand cities across America.

Agency Measures Flight Safety

By Thomas Kamm

PARIS (IHT) — Although the current image of airline securi-has been marred by the DC-10 sh in Chicago and its aftermath, ht safety has just had a record 1 a near-record year, according the Organization of International Civil Aviation.

OICA, a Montreal-based UN ency that monitors airplane safe-standards, reported in a study re-sed in April that there were 23 al accidents in 1978, which ac-unted for 652 deaths, making it a ar-record low year. In the record w year of 1977, the figures show accidents and 592 deaths. But e figures for survivors show a arked increase last year, when 2 passengers survived accidents, mpared to 169 in 1977. These fig-es apply only to regular carrier rvice.

The levels of security vary ac-rding to the type of plane involved. Jet planes, which carry close to 95 percent of the volume of regular traffic, were involved in nine accidents that resulted in the deaths of 450 passengers. Propeller planes, which carry the remaining 5 percent of traffic, had 14 accidents in which 202 persons died. Thus, despite the higher number of deaths, the rate of passengers killed in jet-plane accidents is lower than that of propeller-plane passengers.

Fatality Rate

According to the study, the fatality rate for all regular service flights in 1978 was 0.08 for each 100 million passenger kilometers, an increase of 0.01 over 1977. But the figures for fatal accidents per 100,000 flight hours and per 100,000 landings both declined by 0.2 points, dropping from 0.18 in 1977 to 0.16 in 1978, and from 0.24 to 0.22, respectively.

On unscheduled and charter flights, 1978 was also a safer year. According to the figures available to the OACI, 464 persons died in the 30 fatal accidents involving such flights, as compared to 40 fatal accidents and 832 passenger deaths in 1977.

The higher number of deaths in 1977 was due mainly to the collision between two jumbo jets on a runway of the Santa Cruz de Tenerife airport, in the Canary Islands. Five hundred and sixty passengers died in that crash, the worst in aviation history.

According to preliminary estimates on the security of general aviation, which comprises all flights other than regular or charter flights, there were 741 accidents and 1,525 deaths in the United States, which account for 75 percent of the total volume of general aviation in the world. These figures show a marked increase in accidents over 1977.

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Memo to : Aerospace Executives

From : Dick Morgan

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During the Paris Air Show at Le Bourget, you can see "Night Flight" in the Air Museum.

Airbus No. 2 and Trying Hard in Battle With Boeing

(Continued from Page 7S)

of the world market is getting smaller each year. "And we want to get on that market," he added.

The U.S. giant is willing to admit that Airbus Industrie may well sell a total of 500 aircraft within the next decade. Airbus Industrie and Mr. Lathiere, who believe that the market for the A-300 and the A-310 is about 3,000 planes, have more ambitious plans than that.

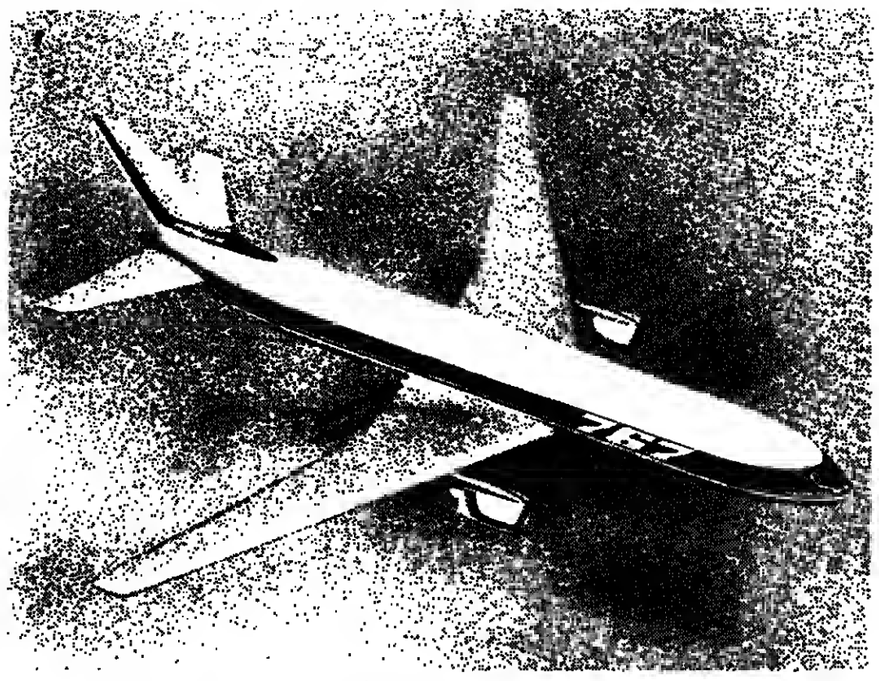
But here is where the small print comes in: Boeing has no current rival for the A-300 — a 250-seat, wide-body twin jet with a transcontinental range — and Airbus does not intend to allow itself to be shut out of the U.S. market with its A-310, which Boeing hopes to conquer with its 767.

The two planes that will face each other are:

- The Boeing 767, a twin-jet, 206-seat, twin-aisle plane with a range of 2,285 nautical miles and a cargo hold that the company claims can carry more pounds of freight per pounds of fuel than any aircraft flying today; and
- The Airbus A-310, a twin-jet, 210-seat, twin-aisle plane with a range of 2,800 nautical miles and a cargo hold that can carry 22 tons of freight. The break-even point on this plane, Airbus says, will be 60 passengers and 10 tons of freight.

Both planes will be powered with similar Pratt and Whitney, General Electric or Rolls-Royce engines.

The schdules of production and development for the two planes are close to one another, with the first flight on the 767 set for August, 1981, and certification in May, 1982, whereas the A-310 will fly for the first time in March, 1983. Airlines may find the nine-month difference in favor of Boeing an important factor in their schedules, just as it favored the Airbus A-300 when it was introduced as the first plane of its type.



"We are proud of what we did, but we are realistic. Now we are talking about going from two to eight planes a month and Boeing is producing 28 per month. The distance is very great. So let's be realistic and take our time for that.

"On the other hand, remember what happened let's say 20 years ago. What was Boeing in front of Douglas? Nothing on the commercial aircraft market. And what is the situation now?" — Bernard Lathiere of Airbus Industrie.

Production Capacity

And further to Boeing's favor is its reputation and its production capacity. The Seattle firm has so far produced 941 707s, 1,672 727s, 706 737s and 478 747s, for a total of 3,797 jet airliners that no other firm in the world can match. It has received 84 firm orders and 81 options for an aircraft that has yet to fly. The four U.S. airlines that have placed the orders know that they will be filled on schedule.

Boeing's extraordinary production capacity is currently at 28 aircraft a month, and this includes one-half a 707 — after the Comet — the grand-daddy of all jet airliners, which is now produced mainly for military use. By the time the 767 rolls off the assembly line, Boeing will produce seven of these planes each month, with a potential capacity of increasing that figure.

The firm now employs nearly 75,000 workers but recalls that it had 148,000 persons on its payroll during a peak production period in 1967. It also remembers that it hit a low mark, with 56,000 workers in 1971.

Yet, buoyed by orders for for 490 aircraft worth $11 billion last year alone and by the possibility of offering loan agreements similar to those that other aircraft manufacturers — such as Airbus — have been able to give, Boeing views the future with optimism.

But it remains aware of what Airbus has done and may still be able to do.

According to E.H. Boullioun, president of Boeing Commercial Airplane, which last year accounted for 86 percent of Boeing's turnover, "One of the challenges we face is the Airbus A-300 and A-310."

"We are not scared and we are not going to be complacent, but we will continue to be conservative in our engineering approach and in our dealings with the airlines," he said.

'Basic Models'

Furthermore, he added, "We will continue to fully understand a market before undertaking new projects and we will continue to maintain our family of airplanes. That is, we intend to build a basic model and offer variations of that model so that airlines may take advantage of a great commonality of parts."

Thus, beyond the 767, Boeing is already putting in the works a 757 twin jet, with a capacity of 175 seats, for which it sees a market of 1,000 aircraft, and a 777 tri-jet with transcontinental range. The 757 is expected to come out just six months after the 767, but the tri-jet is still on the drawing boards.

"Competition is good," Mr. Boullioun said, referring to the lesson Boeing had learned from the ability of Airbus to fill in an area where a need existed. "Obviously, the success of Airbus has not been lost on Airbus Industries. We expect more competition in the future, and that is good, for in the long run it is the airlines which are the beneficiaries of competition."

For airlines, the difference between a profitable route and one that loses money often may be the use of an airliner ideally suited for that route compared to one that has been employed to make do. And this is where the competition between Airbus and Boeing really comes in: for the airlines now buying Airbuses for routes on which they had previously used now ourmoded Boeing 707s, 727s and even 737s.

Boeing's loss — and Airbus's gain — is in the nonrenewal of its successful but now older-technology planes in favor of an aircraft better designed for a variety of routes — and for the current period.

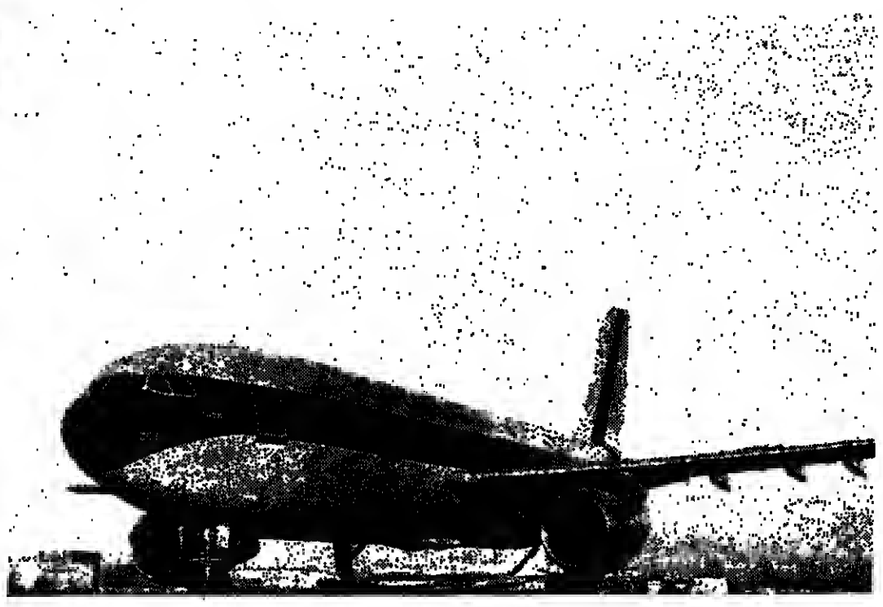
Loan Agreements

Mr. Boullioun added that he would "make every effort to assure that this competition is kept on the value of the product," a reference to the loan agreements that he said Airbus had enjoyed but that Boeing had been prevented by law from relying on. A new U.S. law permits Boeing to make similar loan agreements.

And, he said, confident of his firm's unmatched capacity, "We will do all we can to continue to provide the best post-delivery support in the industry."

"We are not scared and we are not going to be complacent, but we will continue to be conservative in our engineering approach and in our dealings with the airlines.

"We will continue to fully understand a market before undertaking new projects and we will continue to maintain our family of airplanes. That is, we intend to build a basic model and offer variations of that model so that airlines may take advantage of a great commonality of parts." — E. H. Boullioun of Boeing.



"There are 3,000 jets now flying throughout the world with 10 years' operation service and 1,200 with 12 to 20 years," Mr. Boullioun pointed out. "The replacement market is large, but for quieter, cheaper, more efficient aircraft."

Boeing, he said, estimates the aircraft market for 1979 to 1988 as being worth a potential $79 billion in constant dollars. Of that total, it believes that the short to medium-range category should account for $46 billion.

Airbus, Mr. Boullioun said, will probably take up to a third of the latter market, but it is unlikely that it will attempt anything in the larger 747-type aircraft. He added that Boeing was confident of being able to maintain its 57-percent share of the world civilian aircraft market.

The Airbus background has something of an American success story about it. Created in 1970 — after launching the A-300 program — by an accord between two partners (Aerospatiale of France and the West German Deutsche Airbus GmbH), it developed and has sold what Frank Bormann, the former U.S. astronaut and head of Eastern Airlines, last year said was "the best subsonic plane flying today."

As of today, the company has sold 346 planes, including 218 options. Of that total, 167 sales and 72 options were accounted for by the A-300 and 52 sales and 55 options for the still unflown A-310.

Novelty

Recalling the early reticence of airlines toward its now successful A-300, Airbus points out the novelty of seeing carriers order the A-310 with the same confidence that they show in ordering a plane from Boeing.

These orders, coming in from the world over, including Eastern Airlines in the United States, have allowed Airbus Industries to take the second spot among the world's aircraft builders — with a third of the wide-body plane market — and to account for 19 percent of all civilian aircraft orders in dollar value last year. By comparison, Boeing's share of the market was 57 percent, the Lockheed Aircraft Corp.'s 6 percent and McDonnell Douglas Corp.'s 17 percent during the same period.

Yet, since it is number two, Airbus is trying harder than its giant rival — or, at the very least, just as hard. According to Mr. Lathiere, the company's current customers will need 800 aircraft to complete their fleets into the 1990s. And this is just as well for Airbus, which has calculated that it will have to sell about 650 aircraft of both the A-300 and A-310 types to break even.

But it believes that the market for the next two decades will be for 2,500 to 3,000 planes of those two types and, in accord with Boeing, it feels certain that it will sell more than 1,000 of these.

The one major point that still remains fully uncertain is the company's production capacity. Airbus is now a consortium of seven (and soon eight, with the inclusion of Belgium) European firms, each producing part of the aircraft that is assembled at Toulouse. Production capacity is now at 2.5 aircraft a month, and the company is confident of moving that figure up to four next year, six in 1982 and eight to 10 afterward depending on continuing demand.

Deliveries

This is what the 18,000 persons on the Airbus payroll can produce compared to the 28 aircraft per month — only seven 767s — that Boeing can put out each month. But should Airbus be deficient in meeting client orders, it would take more of an effort for the European combine to increase its staff and output than for the American firm to switch its present assembly lines to meet any new needs.

"There are more than 350,000 persons working in the aircraft industries of the nations which cooperate in Airbus Industrie," Mr. Lathiere said. "Only a small percentage of these are currently working on the Airbus projects. If the need arose, we could call on the assistance of the others." Deliveries to airlines are not one-shot affairs, Airbus said. Of the 32 aircraft sold (including nine options) to Eastern Airlines, for instance, only seven are currently in service, and the others will be delivered in the next few years according to a program that suits both the airline and the manufacturer.

Airbus is so confident that the formula for its fuel-efficient aircraft is the right one for the future that it plans a family of planes (much in the Boeing tradition) built around the basic A-300 model.

These planes, now under study, include a 120-seat, single-aisle twin jet for short to medium ranges and a 220-seat, four-jet aircraft for transatlantic operation. The current A-300 could be adapted to transatlantic service, Airbus says, but international regulations forbid a twin jet from being more than 90 minutes from an airport.

Links

Competition is fine, Airbus agrees with Boeing, adding that it also believes that only the product should be taken into consideration in this competition. The company denies, at the same time, all allegations that sales of its planes were linked to any government pressures or ties of airlines to government policy.

It points out that despite the German association with the Airbus project, the West German national airline, Lufthansa, long ignored the Airbus and only recently acknowledged its qualities through a 50-plane order (including 25 options). KLM, the Dutch national airline, which has just ordered 20 planes (including 10 options), was also not among the first Airbus clients, despite the participation of the Dutch firm Fokker-VFW in the European combine.

And, notwithstanding British Aerospace's 20-percent interest in Airbus Industries, British Airways has shown no interest in the company's aircraft.

"However," Mr. Lathiere pointed out, "if there is intervention somewhere, it is working against us. Each plane we sell to the United States is taxed more than $1 million in customs duties, whereas when Boeing sells a plane to an airline of the European Economic Community, it does not pay any [customs] right.

"We hope this barrier will be abolished at the so-called Tokyo Round [of economic talks] . . . and this will give us a better chance for an interesting fight . . . for the TWA market."

Yet Airbus belittles nation-to-nation competition, particularly with the United States. It points out that since its planes' engines are either General Electric or Pratt and Whitney (no airline has taken up the option for Rolls-Royce engines as yet) and much of its electronics are U.S. made, up to 30 percent of the cost of the aircraft goes to the United States. This increases to 50 percent, a company spokesman says, when counting repairs or replacements of those parts of the plane that need most maintenance.

"We are proud of what we did," Mr. Lathiere said when asked about staying in the number two spot, "but we are realistic. Now we are talking about going from two to eight planes a month and Boeing is producing 28 per month. The distance is very great. So let's be realistic and take our time for that.

"On the other hand, remember what happened let's say 20 years ago. What was Boeing in front of Douglas? Nothing on the commercial aircraft market. And what is the situation now?

"You never can tell," Mr. Lathiere said. Of course, we plan to build new aircraft."

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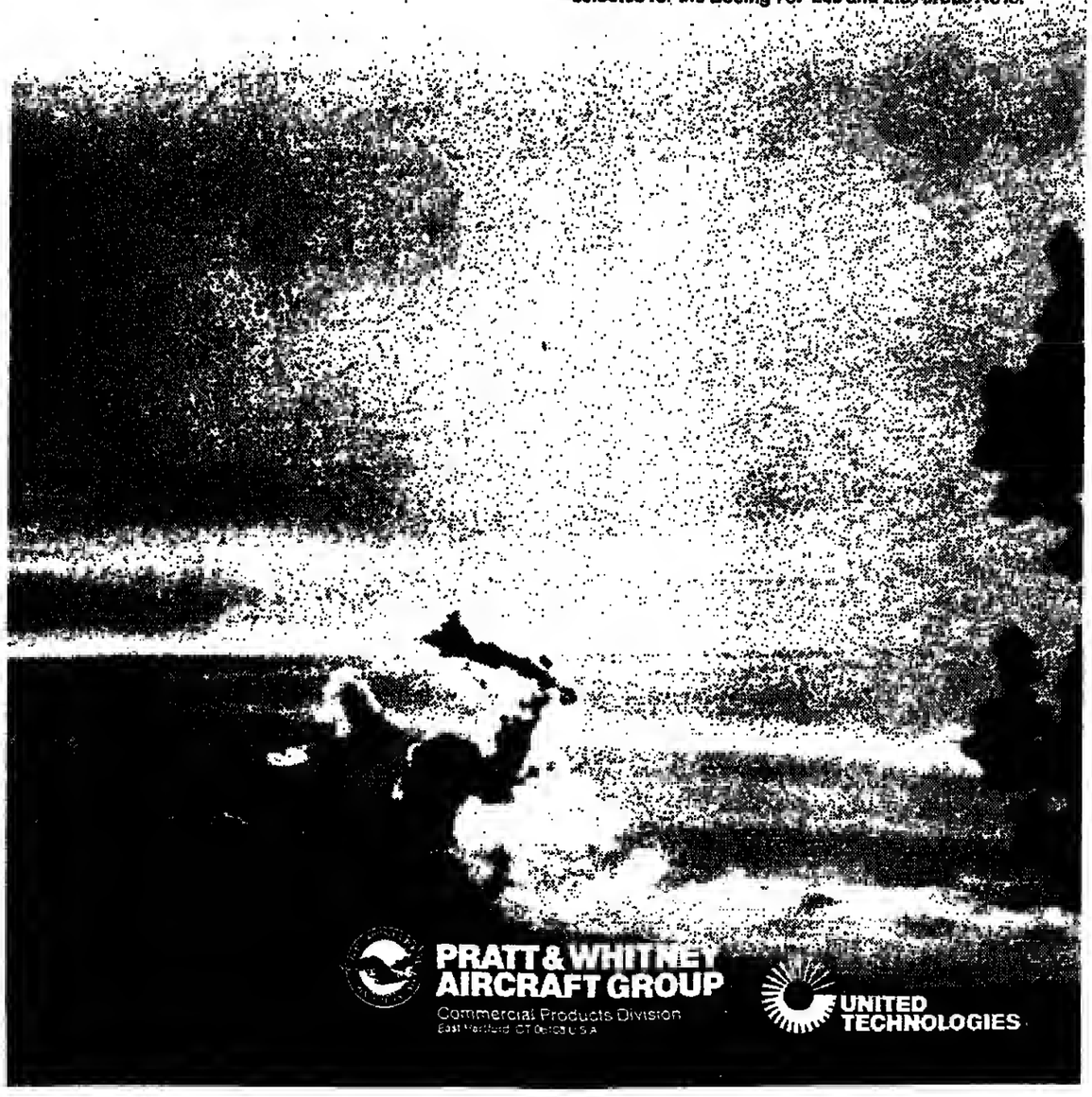

Volvo Flygmotor's New Role

PARIS (IHT) — Volvo Flygmotor's theme at the Le Bourget air show this year is "Going Commercial." The theme demonstrates the company's intention to expand its commercial jet engine activities.

Since 1930, when the company was founded, Volvo Flygmotor has produced nearly all engines used by the Swedish Air Force. The aircraft engine business at Volvo Flygmotor has been primarily dominated by military programs. The main product today is the RM8A and the RM8B engines for the Viggen aircraft manufactured by SAAB.

The experience gained from the development and production of military jet engines is applicable to commercial jet engines. The objective of Volvo Flygmotor now is to participate in ongoing commercial engine projects in order to make further use of its technical capabilities and production resources. As a first step, the company has recently signed an agreement with General Electric covering participation in the commercial CF6-32 program.

Volvo Flygmotor will manufacture 10 different components for the CF6-32 production engines corresponding to 6 percent participation in the program. It will also deliver the same components as spare parts.

The CF6-32 engine will be rated at 36,500 pounds thrust and is being developed to power the new 150-180 passenger twin-jets and 200 passenger tri-jets. The engine is a derivative of the CF6-6 version in service since 1971.

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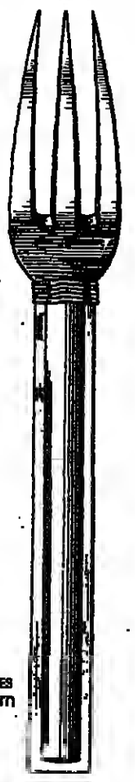

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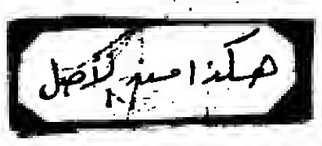

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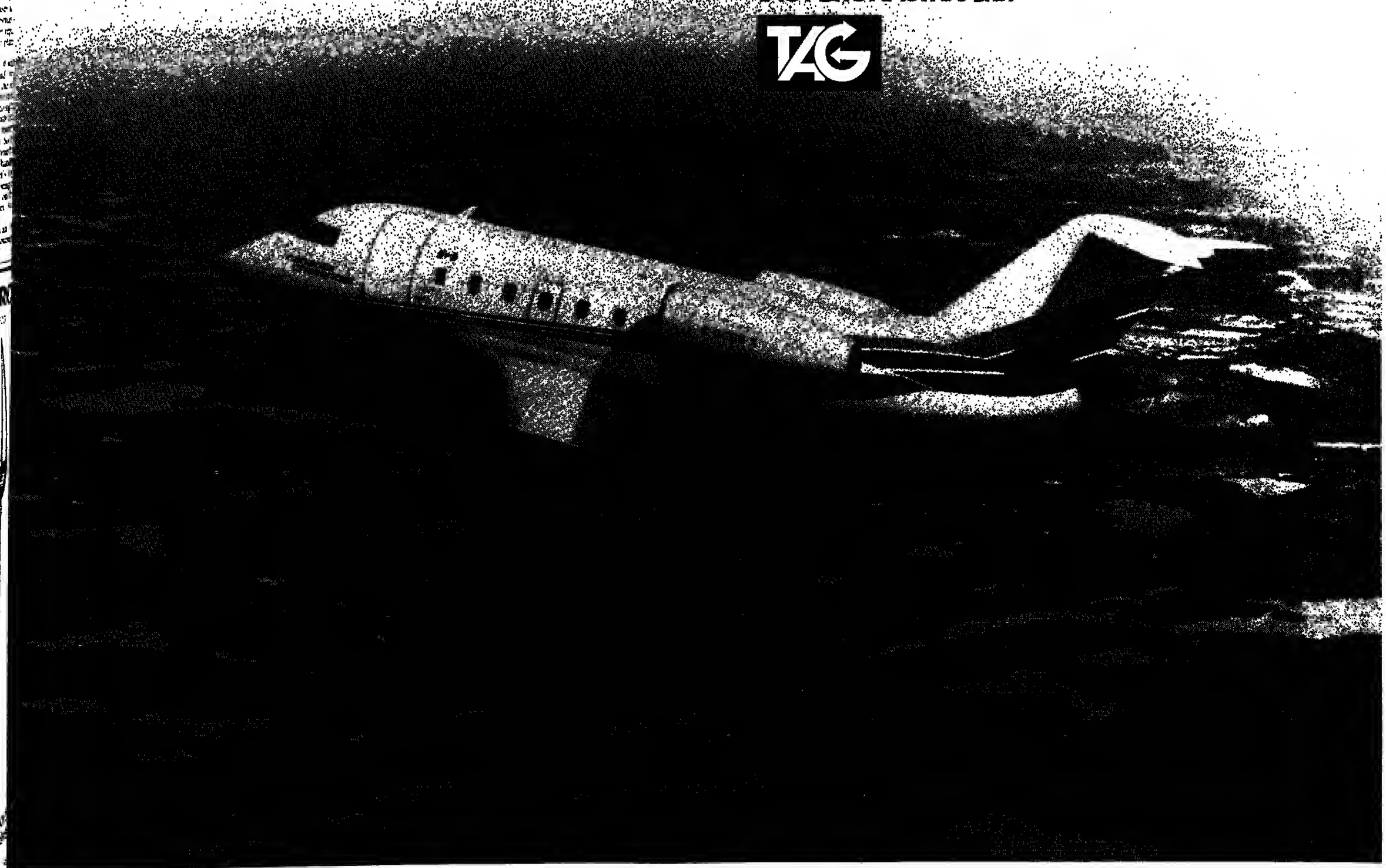

VISIT TAG AT THE CANADIAN PAVILION, BUILDING 2, AT THE 33e SALON INTERNATIONAL DE PARIS, LE BOURGET, 8-17 JUNE, 1979.

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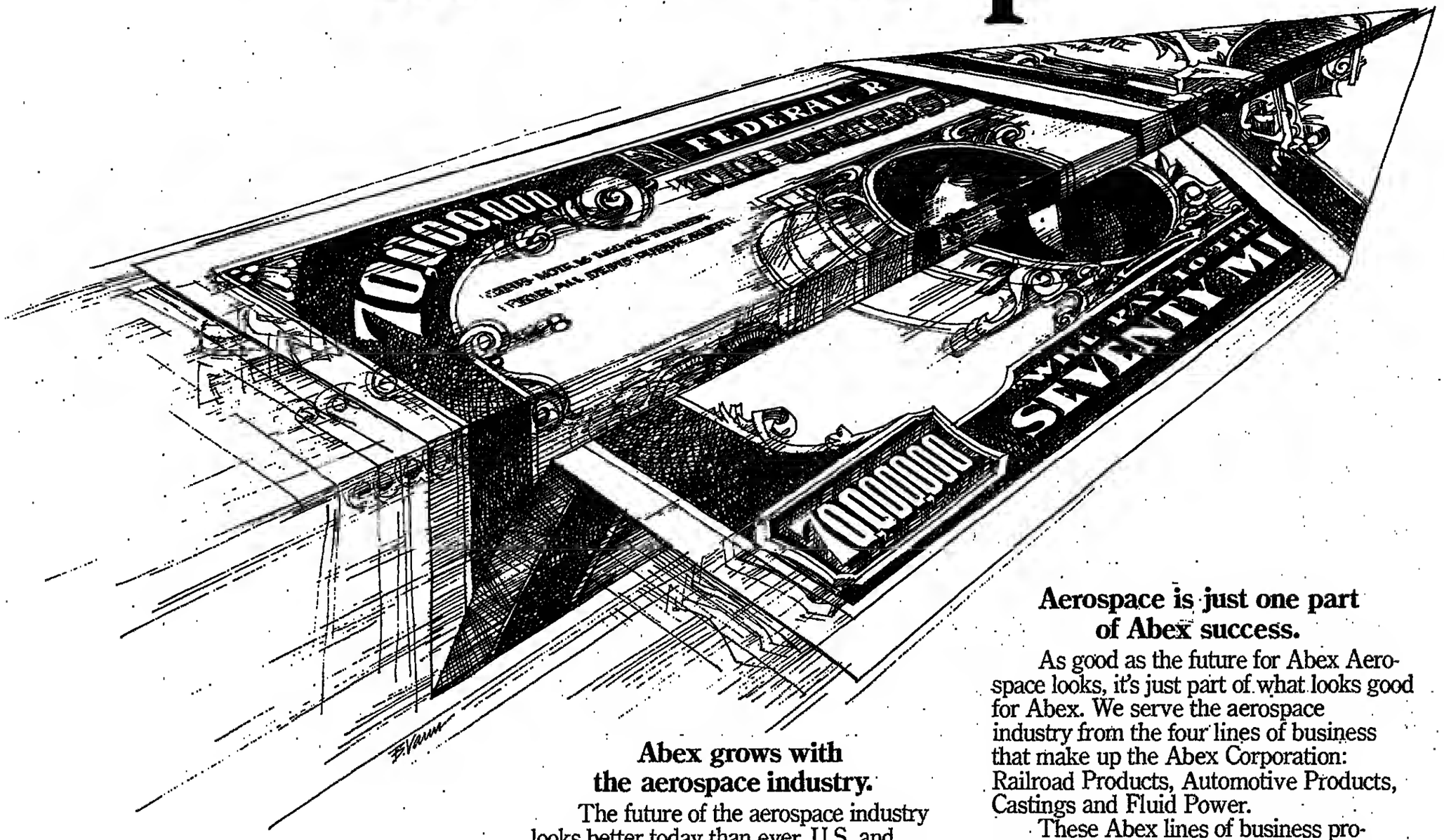

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Our Abex Corporation, with over $70 million in 1978 sales to the aerospace industry, supplies hydraulic mechanisms that control everything from landing gear to flight surfaces.

Abex pumps provide all of the hydraulic power for the Concord SST. They soar with the Space Shuttle, Saturn and Titan missiles and the newest generation of military fighters: F-14, F-15, F-16 and F-18.

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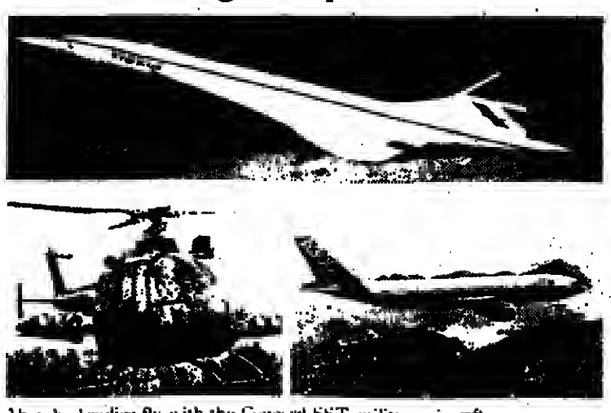
Abex expertise in aerospace engineering has become the benchmark for European, American and Canadian aircraft manufacturers. The simplicity and reliability of Abex hydraulics are unsurpassed.

Abex grows with the aerospace industry.

The future of the aerospace industry looks better today than ever. U.S. and European military orders for aircraft, particularly by the NATO allies, are growing. Orders for commercial aircraft are high. Gains in passenger travel have stimulated the most rapid growth in commercial aircraft orders since the mid-sixties. Each of these growing areas is a source for increased revenues and profits for the Aerospace Division of Abex.

Through its Jetway operation, Abex is also the world's leading supplier of aircraft loading bridges. Jetway bridges help passengers on and off commercial aircraft throughout the world. The newest Jetway is a ground level bridge for single level terminals.

In addition to hydraulics and loading bridges, Abex is a major supplier of friction braking material for aircraft and jet exhaust deflector fencing for airports.



Abex hydraulics fly with the Concord SST, military aircraft like the Bolkow BO-105 helicopter and the Airbus.

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These Abex lines of business produced record sales and earnings for the seventh consecutive year in 1978. From brake linings to train wheels, petrochemical tubing to hydraulics for spacecraft, Abex continues to grow.

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If you'd like to know more about us, visit the Abex exhibit at the Paris Airshow or write: IC Industries, Inc., European Office, 55, chemin Moise Duboule, CH-1209 Geneva, Switzerland.

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Newest Business Jet, 'Challenger,' Lives Up to Its Name

By David James

MONTREAL (IHT) — One of the latest aircraft in civil aviation must have been the most remarkable "sleeper" at the last Paris air show. Displayed as a wooden mock-up on a flat-bed trailer in the Canadian pavilion, the Canadair CL-600 Challenger was not even mentioned in the show's official catalogue.

But this year, the first wide-body business jet, which has been shaking up established "biz-jet" manufacturers, is scheduled to be there and to fly every second day of the show.

To be in Paris, the second preproduction plane, aircraft 1002, has temporarily left its sister (1001) and the certification test program, which has been under way in California's Mojave desert since January. During the second week of May, it returned to the Canadair plant in the Montreal suburb of St. Laurent to receive a new white-and-red paint job for the Challenger's formal world debut. By the time the chief test pilot, Doug Adkins, set the plane down near Paris at Le Bourget, it had had only a total of 60 hours in flight.

What Canadair, the Canadian government-owned aircraft manufacturer, has achieved is seen by many industry experts as a miracle: It designed and built an entirely new airplane in only 24 months. The go-ahead came in the autumn of 1976.

'No Risk Deposit'

Since the beginning, Canadair's "no risk deposit" sales pitch has had strong appeal. A fixed price of $4.3 million is set for the first 50 units. All customers are guaranteed that their plane will "fly faster, farther and more economically than any other business jet either flying or on the drawing boards." If those performance specifications and other guarantees, including delivery within 60 days of the contracted date, are not met, deposits will be returned with interest.

When the first flight was made on Nov. 8, 1978, advance sales for the Challenger reportedly set a world record for any nonmilitary aviation program. Canadair had 109 firm orders, with nonrefundable deposits of about $220,000 per plane. There was also a letter-of-intent order for an additional 25 of the longer-version Challenger now being designed.

The fundamental features that make the Challenger so popular come from the design, which the late Bill Lear made for his LearStar 600 and gave to Canadair in 1976 in return for a royalty (on a diminishing basis) on each plane sold.

In 1974, Lear visualized an intercontinental business plane with an entirley new airframe and the latest technology: supercritical wing design, developed by Richard Whitcomb at the National Aeronautics and Space Administration, and powerful high-bypass-ratio turbofan engine instead of pure jets.

The father of the Learjet wanted his new dream built in the United States, but manufactureres were not prepared to invest $100 million to create a new competitor for their own products.

Unique Concept

Lear did attract the interest of Fred Kearns, president and chief executive officer of Canadair. He was looking for a new product line and noticed the continual growth in business jet sales despite the energy crisis. He saw the benefits of Lear's unique concept and, in 1976, the new wing and engine were parts of a Canadair blueprint for a plane between 10 and 20 years more modern than any competitor's.

Canadair sales literature carefully uses the term "advance technology" instead of "supercritical" to describe the wing design. The company does not want to ecourage NASA to take legal action to substantiate its untested claim that Canadair, and other manufacturers, are using this agency's patented wing technology without permission. Whatever the origin or description, the wing produces a lot of lift and very little drag. It raises the top speed that the subsonic aircarft can attain and it also increases fuel economy by as much as 20 to 50 percent.

The two high-bypass-ratio (5:1) turbofan engines used on the Challenger are Avco Lycoming ALF 502L-75. These put out 7,500 pounds of thrust each and are among the largest engines ever mounted on a corporate aircaraft. Its efficient engines and innovative wing design give the plane the power to use short runways and go very fast and far without burning much fuel.

Additionally, the fan engines make the Challenger one of the quietest corporate jets, almost matching the small Cessna Citation, which is the only jet permitted into some U.S. airports that prohibit jet airplanes because of noise laws.

Because the plane is capable of eight-hour flights, Canadair discarded the LearStar's narrow body, saying "corporate executives don't want to sit in the prenatal position in an executive mailing tube for long periods of time." The cabin was enlarged from 88 inches to 106 inches and a high T-tail replaced the original low, horizontal one. At this point, Lear dubbed the new design "Fat Albert" and dissociated himself from the project.

But that controversy has not hurt the sales effort of Jim Taylor, president of the marketing unit for the Challenger at Canadair Inc. of Westport, Conn. A former test pilot, Mr. Taylor has an enviable record in selling planes. His campaigns for the Falcon 20 and the Cessna Citation were market leaders. Now he is out to repeat his success with the Challenger.

The value of the 119 Challengers sold to date is $634 million and another 27 are in negotiation (plus 25 orders for the stretch version). The break-even point of about 130 units has been met, all but formally. The first delivery is expected in December, immediately after type certification.

The geographic breakdown for sales is: United States, 68; Arab League, 37; Europe, 6; Canada, 5; South America, 2; Panama, 1.

By 1981, several Challengers per month will be produced by this company that has manufactured more than 3,800 planes, 600 of which were supersonic. Canadair's executive vice-president of operations, Harry Halton, says, "Twenty years won't be anything for a production run if we're as successful as we think we'll be."

The company is expected to announce the setting-up of a second production line later this year to build the stretch version, which will be 90 inches to 105 inches longer. "This is going to be the first of a family of models," Mr. Halton says. "There'll probably be two or three stretches beyond".

How The Challenger Stacks Up Against The Competition

	Challenger Canadair Montreal	Gulfstream III Grumman Bethpage, N.Y.	Falcon 50 Avions Marcel Dassault-Breguet Aviation, France
Fuel Consumption 4,000 n.mi.** (7,404 km.) (6,032 s.mi.) 1,000 lb. payload (454.5 kg.)	14,280 lb. (6,490 kg.)	21,704 lb. (9,866 kg.)	17,500 lb. (7,955 kg.)
Long-Range Cruising Speed	436 kt. 502 mph 808 km/h	445 kt. 512 mph 824 km/h	436 kt. 502 mph 808 km/h
Range	3,600 n.mi. 4,143 s.mi. 6,664 km.	3,600 n.mi. 4,143 s.mi. 6,664 km.	3,250 n.mi. 3,740 s.mi. 6,016 km.
Direct Operating Cost in US$	1.24/n.mi. 1.08/s.mi. 0.67/km.	1.71/n.mi. 1.49/.mi. 0.93/km.	1.37/n.mi. 1.19/s.mi. 0.74/km.
Price in US$	7.0m* (7.65m.) delivery 1982	7.5m* (8.4m.) delivery late 1980	7.5m delivery 1981
Passenger Capacity	12-15 (up to 30 in commercial configuration	15-19	up to 19
Height	6ft. 1in. (1.83m.) flat floor	6ft. 1in. (1.83m.) flat floor	5ft. 11in. (1.78m.) trough

** All planes require enroute fuel stop

* Challenger and Gulf price without furnished cabin and avionics; price in brackets equivalent for Falcon 50 which is delivered finished.

Rolls-Royce Looks to U.S. Engine Market

By Alan Tillier

PARIS (IHT) — The aero-engine world is a three-front battle between Pratt and Whitney and General Electric in the United States and Rolls-Royce in Britain. Rolls-Royce, which has about a fifth of the world market, is seeking to make a dent in the market share of its two rivals, and British eyes have naturally fallen upon the European Airbus, which is powered by GE engines.

Rolls-Royce says it has started discussions with Airbus and that there is a Rolls-Royce option for the aircraft. The engine listed as a customer option is the RB 211/524, and it could be used in either the Airbus 300 or 310. The big question is whether the market would be big enough to justify a £25-million ($50-million) investment, but the company is hopeful that there will be a Rolls-powered Airbus by 1982-83.

The company's main commercial thrust will be in the United States. Future plans call for considerable growth of our share of the expanding civil aeroengine market," the chairman, Sir Kenneth Keith, said. Much of this will come from the United States, where 80 percent of the world's civil aircraft are made and more than 50 percent are operated.

"Because of this and the outstanding potential of the U.S. military market, the company plans to establish a new engineering and manufacturing facility in the United States. This is an integral part of our overall strategy for growth, which will create more rather than less work for our British factories."

Rolls-Royce needs a U.S. plant for parts and research and development, and observers point out that the facility could be partly used for the RB 211 engine. A Stateside presence would help open up the sections of the U.S. military market closed to Rolls-Royce because of its current "offshore" character. (The Spey engine made with General Motors is in two U.S. fighters). The company says there will be a decision on the U.S. plant at the end of the year. Teams have already looked over several sites.

Overruns

In 1971, Rolls-Royce suffered bankruptcy — and was nationalized — because of huge overruns on engine-development cost for the United States. "We went broke, but the decision to enter the United States was right," said a company officer. Total orders for the once ill-fated RB 211 have passed the £2,000-million mark and more than 720 have been delivered to Lockheed, Boeing and customer airlines.

The company passed into British government hands and is now making a profit. Net profit last year was £7.2 million, or half the 1977 figure, but development costs cause swings in the figures of aero-engine makers. Deals signed last year are estimated at £2 billion.

"World aviation markets are opening up for a period of massive re-equipment, and Rolls-Royce is now well placed to take an increased share," Sir Kenneth said. "Provided we continue to remain competitive on costs and delivery times and continue to sustain further developments of our range, our long-term commercial viability is assured".

The engine company, which is now completely separate from the car-making facility, reports that its plants are working to capacity and that it is competing with the other two members of the Big Three for subcontractors.

The company had several major "firsts" in the past year. They included:

- The launching of a new engine, the RB 211/535, in the new Boeing 757 ordered by British Airways and Eastern Airlines — the first time that Boeing has launched a new aircraft with non-American engines. This launch order alone is expected to be worth £300 million to Rolls-Royce.
- The sale to Pan Am of RB 211/524 engines for its new fleet of Lockheed Tristars — the first time the U.S. carrier has ordered non-American engines. It could be worth £250 million to the British concern. Qantas has also placed orders.
- The flight in the United States of the RR Pegasus-powered McDonnell Douglas AV-8B, the U.S. version of the British vertical-takeoff Harrier fighter. Rolls-Royce says it is ahead of the Soviet Union with a vertical-takeoff engine. There was also the initial flight of the Sea Harrier powered by the Pegasus.
- Japan and Nigeria joined the list of 23 nations that have bought Rolls-Royce-powered naval vessels.
- The company signed three new joint ventures for engine production — the Spey in Romania, the Adour in India and the Gem in Egypt — projects worth more than £350 million. (China has long had licensing rights for the Spey engine, and there could be a worth £100 million for assistance in building a new plant).

Rolls-Royce has also diversified into nuclear power, linking with Combustion Engineering Inc. of the United States and Britain's Northern Engineering Industries Ltd. for developing pressurized water reactors.

At the Paris air show, Rolls-Royce is displaying the Harrier's Pegasus vectored-thrust turbofan engine and the RB 199 advanced reheated turbofan engine, which is used in the Tornado bomber and is made along with Fiat and West Germany's MTU. But the main interest will probably remain the RB 211 (a motorised RB 211/524 exhibition engine and a motorized mockup of the RB 211/535 LP fan).

The civilian future of Rolls-Royce depends on the RB 211 — getting it into more 747s, longer-range Tristars and more 757s. Rolls-Royce exports now represent 50 percent of total sales — 1978 exports exceeded £320 million — and there is continued emphasis on the RB 211.

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Treaty Leads to Restructuring of Arab Weapons Industry

By John Whelan

LONDON (IHT) — The first casualty in defense terms of the Egypt-Israel peace treaty has been the fate of the weapons industry planned by Egypt, Saudi Arabia and the oil-producing Gulf sheikhdoms of Qatar and the United Arab Emirates.

The hard line taken by Saudi Arabia after President Anwar Sadat signed the peace accord with Israel, resulted in a decision by the Saudis and their Gulf partners in the Arab Organization for Industrialization (AOI) to wind up the organization by July 1. Though the Egyptians have described this announcement as "illegal" the Saudis have convened a meeting for early June in Paris to discuss the details of the split.

The AOI, which was set up in 1975, was first known as the Arab Military Industries Organization, and though it had been affected by disagreements long before the Egypt-Israel peace treaty Western armaments concerns entered a number of manufacturing agreements with the AOI, which must now be in jeopardy. Coming so soon after the suspension of defense contracts in Iraq the AOI demise is a serious blow to the West's weapons industry.

It is also a serious blow for President Sadat. Egypt stands to lose up to 15,000 skilled jobs and a valuable source of technology, as well as putting into the melting pot the Egyptian government's plans to re-equip its armed forces with modern weapons. These must now look for United States help.

Funding Goals

Egypt's commitment to the funding of AOI was the handing over of four factories, which produce a range of components, munitions and Soviet-designed weapons recalling the days of friendship between Cairo and Moscow. A factory to make 10,000 Jeeps a year was opened in January by AOI and the American Motors Company. They were to be fitted with Swingfire anti-tank guided missiles by British Aerospace and production was to start in September. Another factory is under construction and was to have made Lynx military helicopters.

The Jeeps venture, which is actually in production, is clearly in a better position than the other ventures to salvage something from the wreck of AOI. It may make civilian vehicles. Company officials say there are enough orders to take the $10-million joint venutre through this year. The Swingfire deal is in a much less clear position, and the British side is following a wait-and-see policy. Its agreement, forming Arab-British Dynamics, was signed in December 1977.

The other two ventures bring in the French Societe Nationale d'Etude et de Construction de Moteurs d'Aviation, which has a head of agreement to allow production of it Larzac aero engine. This engine is used in the Franco-German Alpha Jet fighter-trainer, which AOI hoped to build. The hope was the AOI would eventually be involved in more technically advanced engines such as that used in the Mirage 2,000, the French air force's latest combat aircraft.

Lynx Deal

Westland Helicopters is involved in an agreement with AOI to manufacture eventually in Egypt Lynx helicopters with Rolls-Royce engines. The engines were to have been supplied by a company formed by Rolls-Royce in a deal under which the British engine maker was to refit the Egyptian air force's MiG 21's Tumansky engines.

Without the Gulf and Saudi money the Egyptian government is unlikely to be able to continue with these capital intensive ventures. It is doubtful whether the Western governments will able to provide replacement funding.

The acting chairman of AOI is Sheikh Faisal bin-Sultan al-Qasimi of Sharjah, the UAE's smallest oil-producing emirate, who stepped in after President Sadat canceled the secondment of AOI's chairman Ashraf Marwan in October, 1978. Marwan, a colorful technocrat, married President Nasser's daughter. Sheikh Faisal's position has been difficult since up to the time the dissolution was announced his appointment had not been confirmed. It seems clear that the break following the Egypt-Israel peace came in an atmosphere that had already been strained by differences between the partners. Qatar, of the Gulf sheikhdoms, has been less than wholehearted about its commitment since the Baghdad summit in November, 1978, which committed the states opposing the treaty to a "warchest" subsidy for the frontline state confronting Israel as well as to a subsidy for the Palestine Liberation Organization.

In announcing the decision to dissolve the AOI the Saudi Defense Minsiter Prince Sultan bin-Abdel Aziz linked it to the near unanimous Arab opposition to the treaty (only Somalia and Oman support President Sadat) though he did not specifically mention the treaty. Sheikh Faisal, speaking more in sorrow than in anger, said: "Egypt's unilateral step in granting Israel legal and political recognition was, in the view of the leaders of the three participating countries, in conflict with the reasons and objectives of setting up the Arab arms industries organisation."

AOI had in fact envisaged creating weapons manufacturing industries in other Arab countries. A deal for a factory making radar equipment in Saudi Arabia in association with Thomson-CSF of France, Collins Radio of the United States and Dacca of the United Kingdom had been discussed and Sheikh Faisal alluded to this after his appointment to ventures in other Gulf states. Nothing emerged from these contacts and it is now difficult to imagine AOI being reconstituted on other Arab soil since few Arab states have the pool of labor available to AOI in Egypt.

Without the Gulf and Saudi money the Egyptian government is unlikely to be able to continue its capital intensive ventures.

In February, Sheikh Faisal had been optimistic that more Arab countries would join AOI. "The door is open for countries to join provided they have the capital," he said. Sheikh Faisal mentioned the possibility of factories in the UAE and Qatar and said a study was under way for a large-scale aircraft maintenance base for Arab countries. Sheikh Faisal envisaged marketing weapons on the basis of a 25-percent down payment before production was started and said prices for customers would be "cheaper than in Europe."

The Sheikh, something of an unknown figure before his AOI appointment, is a cousin of the ruler of Sharjah, Sheikh Sultan. He attended a military academy in Britain and served for a time in the Abu Dhabi defense forces. At the time he was nominated, Egypt put forward its own candidate, an Egyptian official, Hasan Abdel-Fattah Ibrahim.

The London-based International Institute for Strategic Studies has estimated that defense spending by 15 Arab states with known budgets will be $20 billion in 1978 and 1979. Of this, Saudi Arabia will spend about $10 billion. Arab armed forces total 1.4 million men, backed by 8,500 tanks and 2,000 combat aircraft. Of these, Egypt has 1,600 tanks and 500 light armored cars in its two armored divisions. It has three mechanized divisions, five infantry divisions and two paratroop brigades. OF its 612 combat aircraft, 200 are MiG-21s, 20 are MiG 23s, 46 are Mirages and 42 are Northrup F-5s.

The socialist Arab states such as Iraq appear to be more interested in bilateral defense deals. A $1.5-billion defense deal with France is expected to be signed soon by Iraqi officials on a weapons-for-oil exchange basis. The Baghdad government is interested in buying AMX-30 tanks, speedboats equipped with Exocet missiles, helicopters and the Mirage Delta 200 combat aircraft, which goes into production in 1982. Previous purchases from France include 36 Mirage F-1 fighters, more than 100 AMX-30 tanks, Panhard light armored cars and Super-Frelon and Aerospatiale Alouette III helicopters equipped with anti-tank missiles. Iraq also envisages paying with oil for a $900-million weapons deal with Spain to cover warships, military vehicles and light weapons. Both these agreements, if concluded, will cut Baghdad's dependence on the Soviet Union for supplies and mark another move by Iraq toward the West. Both Spain and France see the weapons-for-oil deals as a valuable way of cutting their trade deficits with Iraq.

AOI had hoped to win export orders from other Arab states though it was singularly unsuccessful in attracting equity participation by other states. In purchasing weapons, the conservative Gulf sheikhdoms have tended to spread their procurement across as many Western states as possible to avoid becoming dependent on a single supplier.

In the UAE, for example, the arms purchases of the early years following independence, in 1971, which were mainly British, have been diversified to bring in French Mirage fighters. Oman, which used British weapons to combat the insurgency in the southern province of Dhofar, is now looking at U.S. sources with the promise of weapons from the Carter administration.

The sheikhdoms have traditionally invested in sophisticated weapons as a way of bolstering their regimes against the possibility of internal strife. Their policy has been to keep the Gulf a "neutral lake" though Oman, in facing the insurgency threat in Dhofar, has had to cope with a low density war on its southern border with democratic Yemen. On the face of it, it always seemed unlikely that they would get the bulk of their weapons requirements from Arab sources. The only truly popular Arab-made weapon in Saudi Arabia is the local version of the universal symbol of the guerrilla, the AK 47, which is a favorite of sheikhs' bodyguards everywhere.

On the deficit side for Egypt is the loss of technology transfer that AOI represented. British Aerospace might well have gone one further than the Swingfire and produced its Rapier missile system in Egypt after a similar project collapsed in Iran following the exile of the shah. A possible follow-up to the Lynx might have been Westland's Sea King helicopter. These deals now look unlikely.

Israeli Aircraft Marks Quarter Century of Growth

By S. T. Kantin

PARIS (IHT) — Israeli Aircraft Industries is celebrating its 25th anniversary at the Paris air show, a quarter of a century that saw it rise from a small firm that kept busy overhauling old aircraft from the world's scrap heaps to become one of the leading aircraft makers.

Once an instrument for survival, the company has become the largest single industry in Israel, employing 21,000 persons, including about 2,500 engineers.

Israeli Aircraft Industries' sales last year reached a total of $500 million, of which $285 million came from exports to 50 countries throughout the world. The increase of exports has been constant with the firm, except during the 1975-1976 fiscal year, when it sold only $55 million worth of its products abroad.

But the company's growth through the nation's history and the wars it has fought has enabled it to gain experience that has little parallel in the Western world and that, at the same time, forced it to expand into fields that in other nations were covered by different and separate organizations.

Thus Israeli Aircraft not only produces airplanes — and is one of a small number of companies in the world to produce combat aircraft — but also a wide range of electronics, patrol boats and rockets as well as all-purpose land vehicles and many other military and civilian products.

New Program

The company, which began by helping the nation establish itself through transforming rusting hulks into combat planes, is reaching back into its reserve of experience and, for the first time, is offering what it calls a capability-extension program. This means adapting for others what it has long done for itself, upgrading combat planes. The service includes engine replacement, integration of avionics (electrical and electronic devices and systems) and reinforcing structures to make them last longer and the aircraft more maneuverable.

At the remodeled permanent Israeli pavilion at the air show, the company is displaying a Trispace combined and integrated defense system, which draws on the various capabilities of the combat-proven organization. Israeli Aircraft believes itself to be the only manufacturer to offer such a system, the result of the company's development under the strenuous conditions of war and embargo.

This Trispace system offers air, land and sea military equipment and its communications, all fully integrated for any combinations of missions. This, the company says, offers the advantage of having perfectly matched systems of combat for all military groups.

Yet, basing this year's display on the slogan "A Touch of Peace," Israeli Aircraft prefers to emphasize its civilian production, which includes, in addition to medical electronics, the Arava aircraft for short take off and landing and the Westwind executive jet.

The Arava, which was built to perform a variety of civilian and military tasks, can fill the gap between helicopters and conventional planes. It can be transformed rapidly from a paratroop plane to a hospital craft or farm-equipment transport. The plane can easily be distinguished by its twin booms and wing-tip tabs, which increase its capacity by 5 to 7 percent.

Westwind

The Westwind is a Mach .8 long-range twin jet that has been sold to companies and governments "on four continents," the company says. More than 250 of the four versions of the planes are now flying throughout the world.

What may be one of the most successful products of Israeli Aircraft Industries turns out, at the same time, to be one of the most controversial: the Kfir combat plane. A delta-wing, canard-configuration Mach 2.2 fighter, it is powered by a U.S.-made engine. The structure and profile of the aircraft is sufficiently reminiscent of the Mirage aircraft that long equipped the Israeli Air Force to have created some doubt as to the origin of the Kfir.

An espionage case in Switzerland a few years ago concerning the sale of Mirage blueprints further added to the belief that the Kfir was, in fact, an offshoot of the French plane. Yet, its construction is unquestionably Israeli. And its adaptation to Israeli needs is certain, as was proven by the Kfir's numerous and successful sorties during the 1973 Middle East war.

With the plane's reputation assured by its use in 1973, Israel set out to sell it overseas. Here it met the veto of Washington, which controls the use of the U.S.-made General Electric J79 engine powering the Kfir. Since the structure of a combat aircraft is designed around its engine, a change to the power unit is not conceivable. Thus, the Israeli government had to seek U.S. permission to sell the plane to such areas as South America and South Africa as well as to the Far East.

The United States has not responded favorably, claiming a desire to keep warplanes out of South America, a United Nations embargo against military equipment to South Africa and the simple lack of interest of its client-states in the Far East.

But this is a firm whose first aircraft arrived in the Holy Land in 1948 through the most tortuous and imaginative paths. In one instance, military planes on a scheduled flyby in Panama continued flying until they reached Jerusalem. Another time, at an apparent filming of an aircraft armada scene in Britain, the plane passed once over the cameras and went on to land in Palestine. With that kind of background, Israeli Aircraft Industries remains undaunted by temporary setbacks and feels certain that sales of the Kfir are assured — one way or another.

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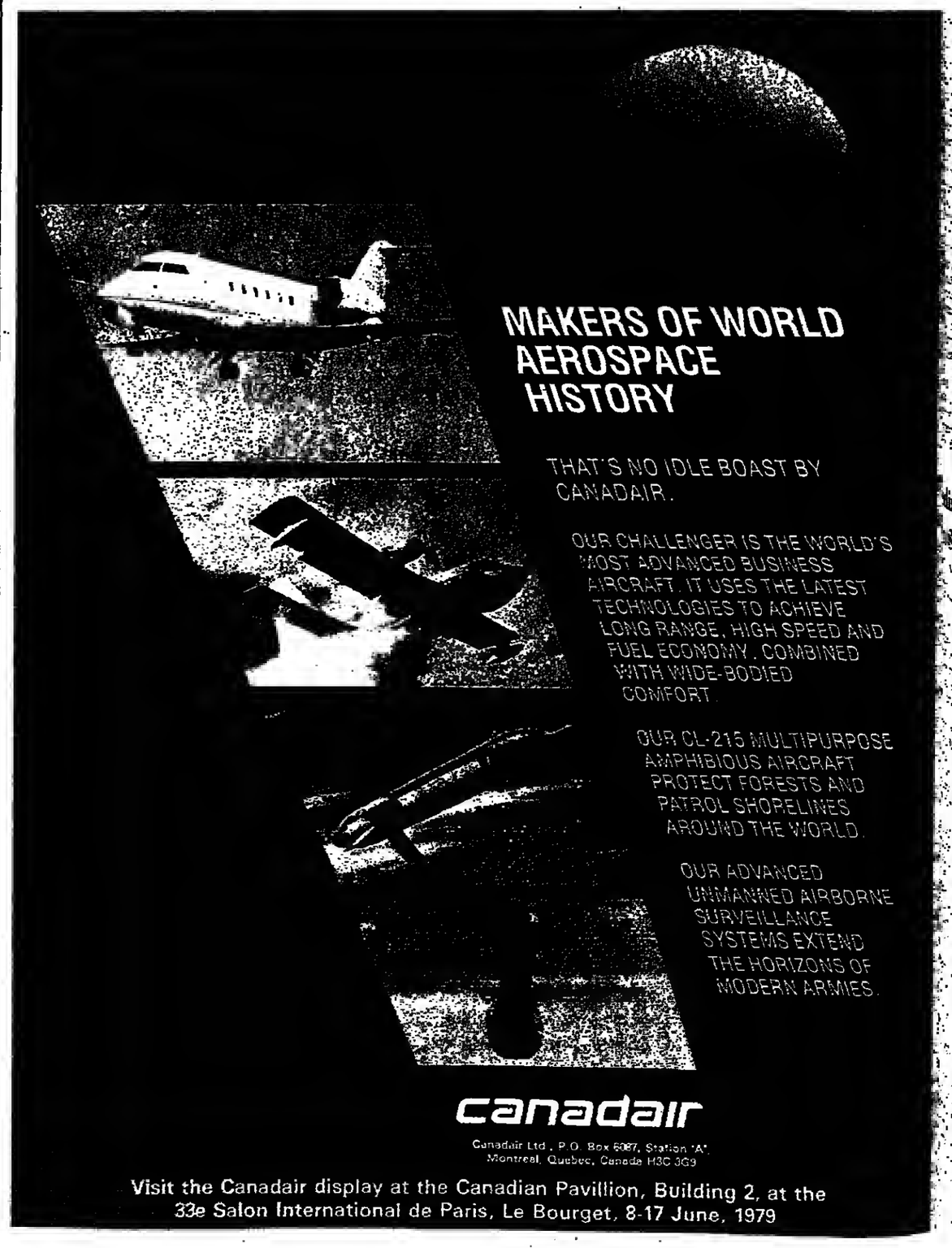


INTERNATIONAL
Herald Tribune
Published with The New York Times and The Washington Post
Page 17 Friday, June 8, 1979 *

uspension of DC-10 Endangers IcDonnell Financial Prospects

S ANGELES, June 7 (NYT) — ie Federal Aviation Administ-n's suspension of its certifi- of airworthiness for the onnell Douglas DC-10 has tened concern about the ft's sales prospects and the ble financial damage to manu-er.

ithout the certificate, the is just a hunk of metal," said ang Demisch of Smith Bar-Harris Upham & Co. in New "If the planes stay grounded everal weeks or months, the any's customers may be ed to look elsewhere."

Donnell Douglas said yester-hat the emergency suspension design certificate was unwar-d and reiterated that it had no to halt production of the air-

e suspension of certification, dered a more serious action a temporary grounding, also ases the financial responsibili-at might befall McDonnell Douglas under the airliner's warranty. In addition, by one estimate, the FAA order is costing major airlines an estimated $6.5 million a day in maintenance, lost passenger revenue and extra personnel needed to staff substitute aircraft.

American Airlines

So far there have been no defections of DC-10 customers. American Airlines, whose flight crashed in Chicago and touched off the DC-10 investigation, said that it did not intend to cancel its order for four DC-10s to be delivered by next May. The airline did say, however, that it was unsure whether it would exercise the three options that it had on DC-10s to be delivered in 1981.

McDonnell Douglas, which still has not absorbed all the $1-billion design cost of the DC-10, may be facing large additional outlays if it is forced to make extensive modifications. The company has a large stake in the DC-10, which represents most of its commercial aircraft operations. But, for the last eight years, the plane has not been profitable, the result of competition with the Lockheed Aircraft Corp. in the early years and of the downturn in the aerospace industry.

Douglas Aircraft has delivered 277 of its 340 firm orders. The company must deliver 400 planes to break even. Other orders, about 70, are commitments and options, which airlines have yet to exercise. Most airlines that fly DC-10s have said that they will continue to fly them should the FAA reinstate the aircraft's certification.

Douglas had intended this year to step up its production of DC-10s to a point where in 1981 it would be delivering 40 planes annually. Those plans have not been altered.

Although no defections from the DC-10 have been announced, some analysts believe that airlines may consider buying the competitive Boeing 747 or the Lockheed L-1011, should the DC-10 continue to have problems. Boeing is sold out through 1981, but Lockheed, which expects to be producing about 24 planes a year by oext year, has the capacity to produce at least twice that many.

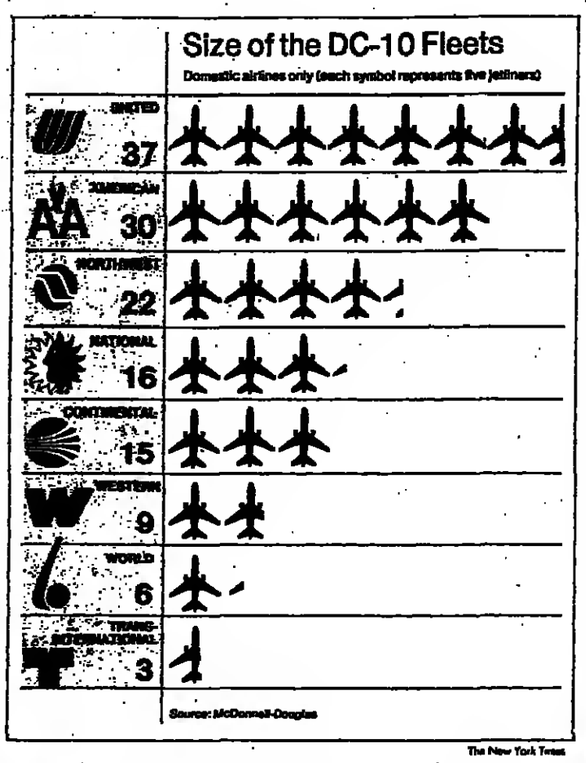
DC-10 Financing at Issue

NEW YORK, June 7 (AP-DJ) — Questions about the current and future financing of the DC-10 have been raised since the crash in Chicago.

Bankers estimate that there are several billion dollars currently outstanding in loans and leasing agreements used to finance purchases by airlines of the DC-10s. Despite the crash and the grounding of domestic DC-10s, major lenders, including banks and insurance and finance companies, are insisting that they have not moved to curtail their role in financing purchases of the aircraft.

Two New York banks have taken precautionary steps, however. One is examining its loan portfolio to determine its exposure in DC-10 financing. The nther is checking to find out which U.S. airlines depend heavily on the aircraft.

Much will depend on the outcome of the federal investigations of the DC-10's safety. Lenders say that the chief danger would lie in a discovery of major structural defects, which would mean problems for airlines that depend heavily on the DC-10 and which could prompt firms to try to unload the aircraft.



IEA to Study rice Impact of U.S. Subsidy

ARIS, June 7 (NYT) — The and other Western industcountries today asked the rnational Energy Agency to y spot oil markets around world to see whether Presi-t Carter's controversial $5-barrel oil import subsidy is ing other nations to pay e for their oil.

fficials at a special IEA ting called today to examine U.S. action said U.S. Am-sador Herbert Salzman apol-ed for the administration's ure to consult with other nbers about the subsidy in ance. He explained that the sidy is intended to prevent from Caribbean refineries, ch traditionally flows into United States at this time of , being diverted away by the high prices ruling nn the ld's spot markets.

urplus Off, onn Says

From Agency Dispatches

ANKFURT, June 7 — West ny's current-account surplus to 1.02 billion Deutsche in April from a revised 1.83 DM surplus in March and a s of 1.22 billion DM in April ear, the Bundesbank said to-a provisional report.

Economics Ministry to Bonn hat industrial production rose ent in March from Febru-mpared with the originally ted 0.85-percent increase. production was unchanged March, according to prelimi-ata, the ministry added. The trial productioo index was up nt from a year earlier.

nufacturing industry incom-ders rose 4.6 percent in April a revised 0.6-percent decline revious month, the ministry said. The March fall was from an originally estimat-percent drop.

current-account surplus for rst four months totaled 3.63 DM, down from a surplus 45 billion DM recorded in the period of 1978, the central said.

llar Declines, ld Down $2.50

NDON, June 7 (AP-DJ) — llar was broadly lower late and the pound also slipped trading.

bullion markets, meanwhile, ice of gold slumped $2.50 an compared with yesterday's evels due to some profit-tak-rs said. Gold ended at 0-277.00 an ounce, bid-

d opened near $280 an The International Monetary yesterday sold 444,000 of bullion at an average of $280.39 an ounce with the ranging from $280.22 to 1 an ounce.

dollar ended London trad-1.9090 Deustche marks, from 1.9155, and at 1.7285 francs, down from 1.7351. A said that late news from Zu-hat the Swiss National Bank nded the compulsory conver-f capital exports could have ed the dollar.

Swiss requirement had been percent of all capital ex-be converted into dollars at National Bank. The central said it was making this move ent liquidity dropping fur-

thin the EMS, the Danish was weak, and at the Frank-fixing the Bundesbank pur-about 14.3 million kroner to it at its intervention point 645 DM for 100 kroner. The n franc continued weak, but ed without Bundesbank help 33 DM, slightly above its in-tion point of 6.221 DM per ancs.

rling slipped to $2.0665 from 2.

Airline Analysts Mixed on Profit Outlook

By Robert Metz

NEW YORK, June 7 (NYT) — Airline analysts are wondering just how seriously profits will be affected by the grounding of the McDonnell Douglas DC-10 in the wake of the accident in Chicago.

In the stock market, airlines flying DC-10s were fractionally lower yesterday, while Boeing, McDonnell-Douglas' rival, rose as did Trans World Corp., whose TWA unit has no DC-10s.

Some analysts are optimistic about the prospects for solving the DC-10 problem and believe that most of the planes will be flying during the peak summer season when the profit potential is greatest. On the other hand, if a substantial number are oot flying, the belief is that the gap could not be made up. Io that event, travelers would be forced to change vacation plans with a consequent loss of profits for the airlines.

Charles Studness, wbo follows the airlines for E.F. Hutton, says that his only recommendation is Delta Air Lines, a carrier that does not use DC-10s. He notes that, during the last five years, Delta has earned a return on investment averaging 17 percent, against about 10 percent for the industry and 14 percent for the Standard & Poor 400 industrial companies.

Robert Joedicke, airlines analyst for Lehman Brothers Kuhn Loeb, noted that during the last quarter of last year the six domestic carriers operated with the following DC-10 capacity: American, 23 percent; Continental, 42 percent; National, 49 percent; Northwest, 27 percent; United, 21 percent, and Western, 33 percent. Overall, the equivalent of 14 percent of the nation's trunk capacity was accounted for by DC-10s in that period.

"Obviously, those carriers with appreciable DC-10 capacity will be impacted," he said. "Eventually the manufacturer will step up the costs of modification."

United Strike

On the other hand, he said, the two-mooth strike at United grounded 22 percent of the domestic trunkline capacity. Thus, he said, things are a little better even without the DC-10s than they had been now that United's strike is over. He did concede, however, that a loss of 14 percent during the peak seasoo was serious.

Michael Armellino, airlines analyst for Goldman Sachs, thinks that it is just a question of time before the DC-10 is operating on a normal basis. He notes that airline revenues generally were up 10 percent in April and May with United on strike so that all but United should have good earnings for that period.

But revenues in the third quarter may be affected by an economic slowdown. He warns that an increase in revenues anticipated at 10 percent will be well below the expected 15-percent increase in costs. He thinks, therefore, that earnings will be down in the third quarter and that airline shares will sell lower in reaction to those earnings. Meanwhile, be is recommending Northwest Airlines, despite its DC-10 fleet, and Delta.

Canada Deficit Down Slightly in Quarter

OTTAWA, June 7 (Reuters) — Canada's current-account deficit fell to $1.7 billion in the first quarter, seasonally adjusted, from a downward revised $1.76-billion deficit in the fourth quarter and a $954-million deficit a year earlier, Statistics Canada said today.

The trade surplus fell to $426 million from $840 million in the fourth quarter and $1.21 billion in the first quarter a year earlier.

U.S. Price Surge Slackens

From Agency Dispatches

WASHINGTON, June 7 — Wholesale prices rose a seasonally adjusted 0.4 percent last month, a compound annual rate nf 4.9 percent, the Labor Department said today. It was the smallest rise since a 0.3-percent increase last August and followed gains of 0.9 percent in April and 1 percent in March.

The index for producer prices nf finished consumer goods for May rose to 212.4 percent of its 1967 average, 10 percent higher than a year earlier.

The prices of consumer foods, which had dropped 0.3 percent in April and risen 1.2 percent in March, fell 1.3 percent last month but were 9.6 percent higher than a year earlier.

The increase in prices of nonfood finished goods slowed to 1 percent in May from 1.3 percent in April and left prices 10.8 percent higher than a year earlier.

Intermediate Goods

The increase in prices of intermediate goods slowed to 1 percent last montb from 1.5 percent in April, as food prices fell 0.7 percent and nonfood prices rose 1 percent. Prices of intermediate foods and feeds had risen 0.9 percent in April, while prices of nonfood intermediate goods had risen 1.6 percent.

Prices of crude goods, which had fallen 0.4 percent in April, rose 0.8 percent in May. Crude foodstuffs and feed prices fell last month by 0.3 percent, the same as in April, and nonfood prices rose 2.3 percent in May after falling 0.5 percent in April.

The 1.3-percent drop in prices of consumer foods was the largest since a 2-percent decline in February, 1976. Prices of beef and veal, which had risen substantially for five months, fell 6.9 percent last montb but were still up 22.2 percent from a year earlier. Pork prices fell 10.1 percent in May and were 15.3 percent lower than a year earlier.

Among nonfood consumer items, gasoline prices rose 4.2 percent and were 29.2 percent higher than a year earlier. Fuel oil prices rose 5.4 percent, making them 29.4 percent higher than a year earlier. Prices for capital equipment rose 0.7 percent in May after rising 1.1 percent in April and 0.6 percent in March.

Finished goods prices of durables rose 0.7 percent io May after rising 0.9 percent in April and 0.6 percent io March. Prices of nondurables rose 1.6 percent in May after rises of 1.7 percent in April and 1.4 percent in March.

The Commerce Department reported that business oow plans to spend 4.5 percent more nn new plant and equipment this year than last after adjustment for inflation compared wilh 3 percent forecast in March.

The latest survey was conducted in April. Last year, business plant and equipment spending rose an inflation-adjusted 5 percent.

Business plans to spend $173.33 billion this year before adjustment for inflation, up 12.7 percent from last year's $153.82 billion which was up 13.3 percent.

Actual spending in this year's first quarter before adjustment for inflation increased 1.2 percent to an adjusted $165.9-billion annual rate following a sharp 5.5-percent rise in the prior quarter.

The department said the upward revision in 1979 spending plans was primarily in the non-manufacturing sector. It said the largest revisions were reported by the "other transportation category," airlines and commercial concerns. It added that mining, electric utilities and communication companies also revised their plans upward.

Wall Street Prices Higher But Blue Chips Sluggish

NEW YORK, June 7 (Reuters) — Strength in energy issues left the New York Stock Exchange prices broadly higher today in the heaviest trading since last November although blue chips turned in a lackluster performance.

The Dow Jones industrial index rose 1.12 to 836.97 while advancing issues led declines 1,009 to 489. Volume rose to 43.38 million shares, the highest since Nov. 1's 50.45 million and up from 39.83 million yesterday.

After the market closed, the Federal Reserve reported the narrow M-1 money supply fell $500 milhon in the latest week but M-2 rose $900 million. The May 30 data raised M-1's average for the last four weeks 6.6 percent compared with the thirteen previous weeks while M-2 was up 7.8 percent.

Business loans at major New York City banks fell $97 million in the latest week after rising $441 million the previous week and compared with a decline of $495 million a year earlier, the Fed said.

McDonnell Douglas was the most active issue and fell ¼ to 20 in trading the included a block of 516,000 shares at 20.

Bunker Ramo fell after Fairchild Industries dropped palns to seek a larger stake in Bunker.

Continental Illinois Properties jumped 4¼ to 30¼ Bouverie Properties, of the U.S., an affiliate of the British National Coal Board's pension plan, offered $30 a share for Continental Properties shares, topping a $25 bid by Brabant NV of the Netherlands Antilles.

Financial General Bankshares said it received an increased tender offer from Credit and Commerce America Investment BV of $22.50 a share. Credit and Commerce, which is controlled by Mideast investors, previously had offered about $15 a share for the 6 million shares outstanding.

Sperry Rand raised the quarterly dividend to 39 cents from 33 cents. Cooper Laboratories raised its quarterly dividend to 15 cents a share from 10 cents.

Flexi-Van said it expects second quarter earnings to be ahead of the first quarter, but full year results will be about the same as last year's.

American Stock Exchange prices continued to rise with the index up 2.60 at 194.53, a record high.

Fed to Drop Ban On Branch Banks

NEW YORK, June 7 (NYT) — The Federal Reserve Board confirmed yesterday that it would allow banks to branch across state lines in order to conduct international business. At the same time, however, the board postponed determining the restraints under which such branches would be permitted to operate.

Banking analysts viewed the board's decision, which had been expected (IHT, March 27), as an important breakthrough in the 50-year federal ban on interstate branching, although it remains unclear just what the practical effect will be. The question is the degree to which the Fed will restrict the activities of these branches.

The branching decision was made at a board meeting yesterday, and a formal vote on the issue is scheduled for tomorrow, when the board also is expected to instruct its staff to prepare a proposal to define the activities in which the branches may engage.

News and Notes

Iran's Soviet pipeline construction plan will probably be canceled, National Iranian Oil Co. Chairman Hassan Nazih says. There is a 90-percent probability that Iran will cancel the $2.5-billion Igat-2 pipeline for extra gas exports to the Soviet Union. He added that be understood the government has already decided to abandon the scheme, bul has yet to announce the cancellation officially. The pipeline, originally due to become operational next year, was part of a scheme under which Soviet gas would have been freed for export to Western Europe in return for Iranian gas supplies to the southern Soviet Union.

* * *

General Motors and the Austrian government have reached a basic agreement on the construction by the U.S. auto giant of a car engine factory at Aspern, Vienna's former airport, according to Chancellor Bruno Kreisky. After talks with GM officials, Austrian Finance Minister Hannes Androsch said a formal decision was expected Monday. According to informed sources, construction outlays would total some 4.5 billion schilling (about $318 million), with the Austrian government's share in the venture estimated at 1.5 billon schilling.

* * *

Saudi Arabia's Petromin oil agency and Japan's Mitsubishi Trading have signed a long-term agreement for the Japanese company to import annually more than 200,000 kiloliters of natural gasoline liquid, a derivative of crude oil, Mitsubishi Trading says. A company official said this was the first time that Petromin has signed a contract to directly export NGL. The contract called on the giant Japanese trading house to purchase a minimum 200,000 kiloliters of NGL annually during July of this year through June 1980. The price was provisionally set at $29.61 per barrel until Petromin's oficial price is anounced.

* * *

China will borrow $8 million from the First National Bank of Chicago for the southern Fujian Province, says William McDonough, the bank's executive vice president. He says the loan was guaranteed by the Bank of China, but be declined to disclose terms. Although Peking has borrowed funds from banks in Japan, West Germany and Britain, this is the first formally signed U.S. loan with China. The Chicago bank made another first in China when it held a board meeting in Peking last week. The bank official said First Chicago hopes to play a major role in financing China's development in the near future. "China's manufactured products will become a major factor in the world marketplace sooner than most observers have predicted," be added. In March, Chase Manhattan had announced a $30-million loan accord with China for the initial phase of building a residential and office complex in Peking. Last week it was disclosed that the deal had fallen through, although Chase officials said that they were confident that they could conclude a $200-million agreement for the entire project within the next few months.

Company Reports

Revenue, Profits in Millions
In local currencies, unless otherwise indicated

Britain

British Petroleum

1st Quar.	1979	1978
Revenue.....	5,060.	4,060.
Profits.....	281.9	85.6
Per Share.....	0.729	0.221

Guthrie

Year	1978	1977
Revenue.....	257.30	282.87
Profits.....	7.70	8.71
Per Share.....	0.31	0.318

Netherlands

KLM Royal Dutch Airlines

Year	1978	1977
Revenue.....	2,800.	2,700.
Profits.....	82.20	137.40
Per Share.....	16.89	33.85

West Germany

Veba

1st Quar.	1979	1978
Revenue.....	8,049.	7,223.
Profits.....	92.00	43.00

SIA Picks GE Engines

LOS ANGELES, June 7 (Reuters) — Singapore International Airlines said it selected General Electric CF6-50c2 engine to power its six Airbus A300-b aircraft on order in a contract valued at $47 million.

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has been appointed

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METAXA the Greek classic

NYSE Nationwide Trading Closing Prices June 7

*Tables include the nationwide prices up to the closing on Wall Street.

(Continued From Page 6)

12 Month High	Low	Stock Div. In $	Yld.	P/E	Sls. 100s.	High	Low	Close	Ch'ge Prev Quot.
25½	18½	HeavU	1.24	5.7	-6	169	21⅞	21⅞	31⅛+ ½
7⅝	2⅛	Horizon				390	6⅝	6⅝	6⅝— ⅛
24½	24⅞	HospCp	.60	1.7	12	158	30½	30	30 — ½
27	13	HostInt	.60	3.6	6	83	17⅛	16⅞	16⅞— ¼
32½	21⅝	HougMi	1.40	4.5	7	2	31	31	31 — ⅛
10⅛	5⅛	HousFb	.36	6.4	16	158	5⅝	5⅝	5⅝
21⅞	16⅞	HoushF	1.45	7.8	5	261	18⅝	18½	18⅝+ ⅛
30⅛	28⅝	HouF	pf2.50	7.9	6		31½	31½	31½— ¼
33⅝	26⅞	HousIn	2.36	8.0	7	118	29⅝	29⅝	29⅝— ¼
29⅝	19⅝	HousNG	1	3.3	9	725	u30¼	29⅝	30 + ⅝
17	9	HowdJn	.44	3.6	8	777	12½	12	12⅛+ ⅛
18⅞	15⅝	Hubbrd	1.64	8.6	11	175	u19	18½	19 + ½
21	16⅛	HudsMn	g.30e			25		16½	17 + ⅜
54½	32⅝	HughsTl	.92	1.7	11	817	53¼	53¼	53⅝+ ½
33½	14⅞	Human	.25	2.7	13	311	27⅝	27⅝	27½
24⅝	21⅛	Huma	pf2.50	11.		74	22⅝	22⅝	22⅝+ ½
17⅝	10⅛	HuntCh	.40	3.0	10	51	13⅝	13½	13½
16½	8⅛	HunIR				74	12⅝	13	13⅝+ ⅜
24	12½	HuttEF	.80	4.7	4	57	17	16⅝	16⅝— ⅛
14⅝	9⅞	Huvck	.72	5.9	9	139	12⅝	12⅛	12⅛— ⅜
— I—I—I —									
32½	22⅛	ICInd	1.84	6.0	5	73	27⅛	26⅞	27⅛+ ½
51	39⅞	ICIn pf	3.50	8.0		59	43⅝	43⅛	43⅝+ ⅜
8	4	ICN				182	8	4⅝	4⅝— ⅛
47⅞	36	INACp	2	6.9	8	100	44	43⅝	43⅝
24⅝	23	INACp	pf1.90	8.0		1	23⅝	23⅝	
18¼	15⅞	INAin	1.62	9.6		36	16⅞	16⅝	16⅞+ ¼
14¼	9⅝	IU Int	.95	7.8	37	678	13⅝	13⅝	13⅝+ ⅛
42	20½	IUInt	A			8	41	40½	40½+ ¼
22½	15⅞	IUInt	pf1.25	6.8		2	21	21	
17⅝	13⅞	IUInt	pf1.36	8.1		7	17	16⅝	16⅝+ ½
27⅝	24	IdahoP	2.28	9.0	10	17	25¼	25	25¼+ ¼
25⅝	18⅝	IdealB	1.80	6.9	5	50	23⅝	23	23¼— ½
8⅝	4	IdeaIT	.16r	2.9		55	5½	5⅝	5½+ ⅛
25½	20	IllPowr	2.28	10.	8	404	22⅛	21⅞	22
28½	23	IllPow	pf2.35	9.5		z100	24⅝	24⅝	24⅝+1½
51	42	IllPow	pf4.12	9.5		z200	43¼	43¼	43¼
54⅛	48	IllPow	pf4.47	9.1		z400	49	49	49 + ⅜
28½	20¼	ITW	1	2.7	9	44	27	26⅞	26⅞— ⅛
24⅝	15	ImpCp	1	3.9	5	297	u25½	24⅝	25½+1
23½	14⅝	INCO	.40	1.9	54	481	21	20⅝	20⅝— ½
7⅛	5⅛	IncCap				23	6⅝	6½	6½
23½	19⅞	IndIM	pf2.15	11.		16	19⅝	19½	19½
24⅞	20½	IndIM	pf2.25	11.		9	21	20¼	21 — ½
27⅝	24½	IndGas	2.40	8.7	8	4	27⅝	27⅝	27⅝+ ¼
24⅝	21⅛	IndPL	2.12	9.0	9	64	23⅝	23⅝	23½— ¼
19⅝	15⅝	IndNat	1.44	8.1	5	2	17⅞	17⅞	17⅞+ ⅛
21¼	11⅞	Inexco	.14	.7	22	480	20⅞	20¼	20½+ ¼
64¼	44¼	IngerR	2.16	6.3	7	325	50¼	49½	50 + ½
44	20⅝	IngR	pf 2.35	7.3		33	32	21⅝	32
14⅝	11⅞	IngrTec	.60	3.5	8	11	18⅝	15¼	15⅝+ ¼
41	23½	InlndSt	2.80a		7.4	5	45	37¼	36⅝	36⅝+ ½
17¼	11½	Insilco	.94b	7.0	8	32	12⅛	12	12
19½	13½	Insilc	wt1.25	5.1		2	15½	15½	15½+ ⅜
2⅝	1⅝	IntInvTr				64	2⅝	1⅝	1⅝— ⅛
22⅞	12⅝	Integen	.44a	2.1	9	667	22⅝	20⅝	21 —1⅝
22⅝	18⅝	ItcaSe	1.92a	9.7		23	19⅞	19⅝	19⅝+ ⅛
46⅝	34	Interco	2.20	5.5	6	60	39⅝	39¼	39⅝+ ⅜
29¼	18½	IntDiv	0.11e		6	6	29	29	29
28	21⅛	Intrtk	2.20	8.5	15	57	26½	26	26 + ½
18⅞	10	IntAlum	.40	5.6	6	125	11⅛	10⅝	11 + ⅛
80	75⅝	IBM	3.44	4.4	14	2745	78¼	77⅝	77⅝+ ⅛
27⅝	26½	IntFlav	.80	3.9	13	745	21	20⅝	20⅝
46⅝	31⅝	IntHarv	2.20	6.0	4	224	36⅝	36	36⅝+ ⅛
47½	34	IntMin	3	6.2	7	834	u48	46	47⅛+1⅜
23⅝	17	IntMult	1.20	6.8	6	110	20	19⅝	19⅝— ⅛
49¼	35⅛	IntPaor	2.38	5.0	6	605	44⅝	43¼	43⅝+ ¼
16	9¼	IntRectf	.25	1.8	7	23	14	13⅝	14 + ¼
34⅝	26⅝	IntTT	2.20	7.6	14	659	28¼	27⅝	28½+ ½
61¼	47½	IntTT	pfH 4	7.0		1	51	51	+1
56⅝	44⅝	IntTT	pfJ 4	8.6		7	46¼	46¼	46¼+ ¼
55⅝	44	IntTT	pfK 4	8.6		32	44¼	45⅝	46¼+ ⅝
41½	49¼	IntTT	pfO 4	9.4		7	51¼	53	52¼
41⅝	32⅝	IntTT	pfP2.25	6.4		8	35	35	20 —1
58⅝	47½	IntTT	pf4.50	9.0		5	49⅝	49⅝	49⅝+ ⅜
22⅝	18	Intrpce	1.30	7.7	8	56	17½	16⅝	16⅝
39¼	20⅛	IntrpGp	1.60	4.8	8	26	36	35⅝	35¼— ⅛
16	13⅝	IntstPw	1.50	11.	8	21	14½	14¼	14¼+ ½
43¼	17½	Intrwav	.80	1.9	7	266	41⅛	41½	41⅛— ¼
22⅝	17⅝	IowaBI	s.52	2.4	7	360	21¼	19⅝	21½+ 1⅜
17⅝	13¼	IowaEl	1.50	10.	7	90	14⅝	14¼	14⅝+ ½
22	18⅛	IowiIG	2	10.	7	22	19⅝	19⅝	19⅝+ ¼
27	21⅝	IowiIl	pf2.31	10.		z180	23	23	+1
28	22⅝	IowaPL	2.52	9.9	7	422	25½	25	25⅛+ ⅜
22⅝	19¼	IowaPl	2.04	9.6	7	48	21⅝	21	21¼+ ¼
8⅛	4⅝	IocoHo	.12	2.3		58	5¼	5⅛	5¼+ ⅛
32½	14	IlekCo			13	108	24	23⅝	23⅝+ ⅛
37½	12	IlelCo	.80	7.0	3	2033	11⅞	d11½	11½— ½
15⅝	12	Itel	pf 1.44	11.		45	13½	13¼	13¼
— J—J—J —									
20¼	19⅛	JmesF	1.20	6.0	9	48	20¼	20	20½+ ⅛
14½	6⅝	Jamsnv	.08b	.8	8	47	9⅝	9½	9⅝+ ¼
19⅝	14⅝	Jantzen	1	5.9	5	10	17	17	17 — ⅛
13⅛	9⅝	JoanP	1.56e	16.		53	9⅝	9⅝	9⅝
35⅛	28¼	JeffPil	1.20	3.4	9	234	35⅛	34⅝	35¼+ ⅞
101	69⅝	JerC	pf 9.36	12.		z120	76½	75¼	75¼— ¼
86¼	59	JerC	pf 8.12	13.		z20	62½	62½	62½

12 Month High	Low	Stock Div. In $	Yld.	P/E	Sls. 100s.	High	Low	Close	Ch'ge Prev Quot.
91	00	JerC	pf 8	12.	z100	64½	63	64½+3¼	
87⅛	59	JerC	pf 7.88	13.	z100	62½	62½	62½+1	
123	95⅛	JerC	pf13.50	12.	z518	100½	100	100½	
110	84⅛	JerC	pf 11	12.	z370	91	89	91 +2	
25⅛	16½	JerC	pf 2.18	12.	16	18	17½	18 + ⅛	
26	19	JewelC	1.68	7.3	7	55	23¼	23⅛	23⅛— ⅜
5⅝	2⅝	Jewelcor			5	9	3¼	3⅛	3¼
34⅝	22½	JhnMan	1.92	7.9	5	204	24⅝	24	24¼
63⅝	40	JhnMn	pf5.40	8.4		17⅞	u64½	64	64¼+ ½
89	67⅝	JohnJn	2	2.8	13	676	70¼	70⅛	70⅝+ ⅜
12	5½	JohnEF			18	18	7⅝	7⅝	7⅝+ ⅛
21⅞	21⅛	JohnCn	1.10	4.0	7	242	28⅛	27⅞	27⅞— ⅛
16¼	11½	JonLon	.60	5.0	7	180	12¼	12	12 — ½
37½	27⅞	Jorgen	1.30	4.1	6	21	32¼	32	32 + ¼
23⅝	16⅝	Jostens	1	5.1	9	43	19⅝	19⅝	19⅝— ½
38½	27½	JoyMfg	1.64	4.0	9	332	34¼	33⅝	33⅝+ ⅜
— K—K—K —									
29⅝	23¼	Kmart	.84	3.2	9	900	26⅛	26⅛	26½+ ½
21½	16⅝	KaisrAl	1	5.1	8	454	20	19⅝	19⅝— ¼
82	64¼	Kal Stp	pf4.75	6.4		1	74⅝	74⅝	74⅝+1⅝
29⅝	16⅝	KaisCe	1.40	6.0	4	86	23⅝	23⅝	23⅝+ ¼
36½	17⅝	KaisrS1	1.60	4.8	15	2253	u37½	35⅝	37½+1⅞
8⅝	6½	KaneMil	.28	4.0	7	18	7	6¾	7 + ½
19½	12¼	Kaneb	.70	4.4	8	1035	16	15⅝	16 + ⅜
29⅛	24	KCtyPL	2.66	10.	6	100	25½	25⅛	25⅛
25¼	21½	KCPL	pf2.20	9.9		1	22¼	22¼	22¼+ ½
26⅝	22⅝	KCPL	pf2.33	9.7		00	26¼	26	24 — ½
28⅛	17½	KCSoin	.90	3.2	7	113	27⅝	27⅝	27⅝+ ⅜
21	17¼	KanGE	1.90	11.	8	27	17⅝	17⅝	17⅝+ ½
23	18⅛	KanNb	1.68b	7.4	7	33	19⅝	19⅝	19⅝+ ⅛
22½	19	KanPLt	1.96	10.	7	306	19⅝	19¼	19¼+ ½
28⅝	23⅝	KaPL	pf2.32	9.8		3	23⅝	23⅝	23⅝— ¼
10⅝	5⅝	Katylnd			2	62	7⅝	7⅝	7⅝+ ⅜
27⅞	16⅝	Katy	pf 1.46	6.8		13	21⅞	21⅝	21⅝+ ⅜
10⅝	5⅝	KaufBr	.24	3.0	6	181	8⅛	7⅝	8
19¼	11	Keene	.40	2.6	5	112	18⅝	14⅞	15⅝+ ½
14⅞	6⅝	Keller	.30b	3.4	6	36	9	8⅝	8⅝— ¼
24⅝	17	Kellogg	1.32	7.0	10	421	18⅝	18½	18⅝+ ¼
22	12⅝	Kellwd	1.12	9.0	10	16	12⅝	12½	12½
44	29⅝	Kenmrl	1.32	3.0	8	11	44	43⅝	43⅝
29	19	Kennct	1	4.8	35	457	22½	22½	22½+ ½
23	17⅝	KyUtil	2.04	10.	7	80	20½	20¼	20½+ ⅛
17⅝	11⅛	KerrGls	.44	3.1	7	171	14¼	14⅛	14⅛— ½
56⅝	41½	KerrM	1.50	3.1	18	638	50⅝	50¼	50⅝+1½
16½	9⅛	KeysCn		10	7	109	10⅝	10⅝	10⅝— ⅛
12⅝	17½	KeyStn	s.48	2.0	11	35	17½	d17	17⅛— ½
39⅝	27⅝	KiddeW	1.60	5.3	5	24	30¼	30½	30⅛— ⅜
52¼	42¼	Kidde	pfC 4	5.8		1	45½	45½	45½— ½
30¼	20	Kidde	pf1.44	7.1		4	23	23	23
49⅝	39⅝	KimbCl	2.88	6.0	7	30	48¼	47⅝	48 + ⅛
18	11⅛	KingDSt	.50	7.3	7	200	12⅝	12	12¼— ½
16⅝	14⅛	Kirsch	1.25	7.3	4	51	17½	17	17⅛— ⅜
29⅝	20⅛	KnightRd	.88	2.8	9	395	22	21⅝	21⅝
25⅝	14½	Koehrin	1	4.8	5	42	21⅛	20⅝	20⅝— ¼
31¼	19⅛	Kollmr	.64	3.1	9	11	20½	20	20⅝+ ⅛
34⅝	17⅝	Kopers	1.80	5.5	7	244	21⅝	21⅞	21⅞— ⅛
17¼	7½	Koracp	.34	2.0	8	52	17	17	17
43⅝	43	Kraft	3	5.6	7	223	45¼	44⅝	45⅛+ ¼
13⅞	7½	Kreahlr			7	73	11⅛	11½	11⅛— ⅜
20½	19	Kroger	s	6	257	19⅛	19	19¼	19¼— ¼
18½	13⅛	Kuhlm	.80a	5.4	6	5	14⅝	14⅝	14⅝+ ½
14	9	Kysor	.60	6.4	4	40	12⅝	12½	12½— ⅛
— L—L—L —									
13¼	5⅛	LPE	.10r	1.1	8	53	9	8⅝	9 + ¼
18	14¼	LITCO	1	5.8	8	7	17¼	17¼	17¼— ¼
13½	5⅝	LTV			2	534	8⅝	8⅝	8½
9⅝	6½	LTV	pf 1			8	8⅛	8⅛	8⅛— ⅛
28½	21⅝	LTV	pf 2.68	9.6		12	27⅝	27⅝	27⅝+ ¼
12¼	8	LQuin	1.08i	12.12		57	9⅝	8⅝	9
22½	17⅝	LacGas	1.84	6.4	6	17	22⅛	21½	22⅛+ ⅜
25⅝	13⅝	LamSe	1	4.1	7	281	24⅝	24⅛	24⅛+ ⅜
23½	12⅝	LaneBry	1	6.2	7	79	16⅞	16⅝	16⅝— ⅜
35⅛	22½	Lanier	.50	1.5	13	72	32⅝	32¼	32½+ ½
15	8⅛	LawCh	.60	4.7	14	95	12⅝	13⅛	12⅝
24	14½	LearSe	1.84	5.6	4	78	18⅝	18⅝	18⅝— ⅛
59	36	LearS	pf2.25	4.9		3	46	46½	45½— ¼
23¼	18⅝	LeeTrn	s 1.20		5.2	7	34	22	22⅝ 22⅝+ ¼
25	19½	LeeEnt	.72	3.4	11	13	21¼	21	21 — ⅜
25½	18	Leesona	1.16	4.7	7	60	24⅝	24⅝	24⅝+ ⅜
3½	1⅝	LehVlInd			6	78	1⅝	1⅝	1⅝— ½
29⅝	19	LVIn	pf			2	20	19⅝	20 +1
11⅝	9¼	Lehmn	1.31e	13.		185	10¼	10⅛	10¼+ ½
15⅞	6⅛	Lennar	.40	2.9	4	44	12⅝	13⅝	13⅝— ¼
32⅝	23½	Lenox	1.30	5.1	7	36	25½	24⅝	25¼— ¼
10¼	6⅛	LesFay	.48	6.5	8	19	7⅝	7¼	7⅝+ ½
18⅝	13¼	LevFdC				8	16⅝	16⅝	16⅝
14⅝	13⅛	LevFin	.75a	5.4		7	13⅝	13⅝	13⅝+ ¼
50⅝	31⅝	LevStr	1.80	3.7	7	101	48⅝	48¼	48¼+ ⅛
26⅝	17¼	LevitzF	.68	3.7	6	289	22⅝	23	22⅝+ ⅜
28¼	23	LOF	2.20	8.1	4	46	27¼	27¼	27¼
61	51	LOF	pf 4.75	8.8		24	54¼	54	54¼+ ¼
35¼	26¼	LibtyCo	1.28	3.5	7	14	33⅝	33¼	33⅝+ ½
5⅛	2½	LibrtyLn		10		9	3½	3⅝	3⅝
13⅝	9½	LibIL	pf1.25	11.		1	11½	11⅛	11½
17½	13⅝	Lifemk	s .48	3.0	8	x105	15⅝	15⅝	15⅝+ ⅛
41⅝	29⅝	Lilcarl	2.50	7.0	5	204	35⅝	34⅝	35⅝+1½
53½	41½	LillyEli	1.80	3.3	12	440	55¼	54¼	54⅝+ ⅜
43	34	LincNt	2.80	7.0	6	146	40¼	39⅝	40⅝+1
86	69	LincNtP	3	3.7		17	81	80	81 +2
18⅝	15½	LincPl	1.80	10.		4	17¼	17¼	17¼

12 Month High	Low	Stock Div. In $	Yld.	P/E	Sls. 100s.	High	Low	Close	Ch'ge Prev Quot.
8⅝	2	Lionel	.16	2.3	8	445	7	6⅝	6⅝
28⅝	17⅝	Litton	.50	2.8		2530	u29	28⅝	28⅝+ ⅜
42	26½	Litt	pfc pf			1	u42½	42½	42½+ ½
60	44	Litton	pf 3	5.0		1	60	60	60 + ⅛
20⅝	17⅝	Litton	pf 2	10.		7	20	20	20
37⅝	16½	Lockhd			4	868	22⅝	21½	21⅝+ ⅜
34⅝	20⅝	Loctite	.44	1.7	11	60	26	25⅞	26 + ½
53¼	34⅝	Loews	1.20	2.6	4	67	46	45½	45⅝+ ⅛
15½	9⅝	LomFn	.80	6.2	8	109	12⅝	12⅝	12⅝+ ⅜
19⅞	14⅛	LomM	1.93	10.	18	64	19	18⅝	18⅞+ ½
27⅛	10⅝	LaStar	1.40	6.0	6	68	23⅝	23⅝	23⅝+ ¼
19⅝	15⅛	LILCo	1.70	10.	7	196	16⅝	18⅝	16⅝+ ⅜
48⅝	40¼	LIL	pfE4.35	11.		z100	40¼	40¼	40¼—1⅛
27	21⅝	LIL	pfP2.43	11.		8	23	22⅝	22 + ½
27⅝	24⅝	LIL	pfQ2.47	9.5		11	25⅝	25⅝	25⅝+ ¼
34	24	LongDr	.76	2.8	11	181	27	26⅝	26⅞+ ⅜
39¼	23½	LoralCp	1	3.1	10	211	33¼	32¼	32¼+ ½
30⅛	19½	LaLand	1.28	4.3	18	1178	u30¼	29⅝	29⅝— ½
34⅛	16¼	LaPac	.60b	2.9	7	412	20⅝	20⅝	20½+ ⅜
24¼	19⅛	LouvGs	2	9.4	10	37	21¼	20⅝	21¼+ ⅜
19⅝	12⅛	Lowenst	.60	4.8	6	39	12⅝	12½	12½— ⅛
49⅝	37⅝	Lubrzl	1.60	3.5	11	43	47⅝	44	44 + ½
18½	13⅝	LuckyS	1	6.5	9	2182	15⅝	15½	15⅝
18⅝	7⅝	Ludlow	.60	3.8	16	250	15⅝	15⅝	15⅝+ ⅜
19	14⅛	Lukens	.96	6.6	5	15	14⅝	14½	14⅝+ ½
19⅞	10½	LynCSys	.40	3.7	12	47	14⅝	14½	14⅝— ¼
— M—M—M —									
24	19⅝	MACOM	s.24	1.1	17	283	21¼	20¼	21¼+1
46⅝	31⅝	MCA	1.20	3.8	8	177	43½	43	43
14⅝	8	MEI	.40	3.0	8	57	12¼	12	13⅛
28⅝	16	MGIC	1	4.0	8	792	28⅝	24⅝	25 — ⅛
27⅛	13½	MacAF	1	6.8	7	48	14⅝	14⅝	14⅝— ½
14	7⅝	MacDn	.40	4.0	6	214	10⅝	9½	10⅛+ ⅛
15	6⅝	Macke	.48	5.8	6	49	9⅝	9⅝	9⅝— ⅛
20⅛	8⅛	MacmIl	.72	3.8	11	802	18⅝	18½	18⅝— ½
20	18⅝	Macni	pf1.88	4.3		1	28	28	—1
45⅝	32	Macy	1.85	5.0	6	20	37	36½	37 + ⅜
53	43	Macypf	4.25	9.4		z200	45	44½	45
15¼	12¼	MdsFd	1.2e	9.2		366	14⅛	13⅝	14 + ½
14⅞	7⅝	MagicCf	.60	6.2	5	47	9⅝	9⅝	9⅝+ ½
32⅝	26⅛	MalonH	.96	3.4	10	3	28⅝	28⅝	28⅝+ ¼
13⅝	8⅛	Manhin	.30b	3.5	2	99	8½	8⅝	8½
14¼	6⅛	ManhLI	.20	3.5	12	41	8⅝	8½	8½— ¼
40½	30⅝	MinnLn	2.28	6.9	6	537	33¼	32⅝	32⅝— ⅛
37⅝	20¼	MaPCO	1.40	.4	31	1209	32⅝	32	32¼+1
28¼	24⅝	MaraOil	s.80	2.9	7	297	27⅝	27⅝	27¼— ¼
79⅝	41⅞	MaratO	2.80	3.6	10	379	78⅝	77½	77¼—2¼
40	34¼	MaratOwl				12	u40¼	38⅝	39 —1
28⅝	17½	Marem	1	3.5	8	244	28⅝	28	28¼
17⅝	13⅛	MarMid	.88	5.3	7	59	15⅝	15⅝	15⅝— ¼
17⅝	11½	MarIonL	.64	5.1	18	56	13	12⅝	12⅝— ⅜
18⅝	9⅝	MarkCh	.36	2.9	16	x22	12⅝	12¼	12¼+ ⅛
30⅝	18	Mark	pf1.28	5.1		x6	14⅝	14⅝	14⅝+ ⅜
35⅝	20⅝	Marlay	1	4.8	6	99	21	20⅝	21 + ¼
16⅞	10⅝	Marriot	.16	1.1	10	396	15⅛	18	15 + ⅛
68¼	56½	MrshM	3.20	5.2	12	148	61	60¼	61 — ⅜
25½	15⅝	MrshF	1.34	7.8	8	88	17⅝	17⅝	17⅝— ¼
29⅝	24⅛	MartM	2	6.1	8	222	33⅝	33	33
15⅞	9	MaryK	.48	3.2	11	33	15⅛	15⅛	15⅛+ ½
26⅝	17⅞	Md Cup	.56	2.9	7	20	19⅞	19	19⅛+ ⅛
26	18¼	Masco	.60	2.5	10	95	22⅝	22⅝	22⅝+ ⅜
30⅝	17½	Masonit	1.28	4.5	8	185	28⅝	25⅝	26⅝+ ⅜
15⅝	11⅛	MasM	1.36e	9.0	10	46	13⅝	13⅝	13⅝+ ⅜
12½	8	MassvF	g			258	11⅛	10⅝	11 + ⅛
17½	15⅛	MasCp	1.68	10.		70	16⅝	16⅛	16⅛— ¼
11⅝	10⅛	MasInc	1.60	9.0		17	11	10⅝	11 + ⅛
42⅝	22⅝	MatlsuE	2	6.2	8	1	31½	31½	31½— ⅛
13⅛	6½	Mattel	.30e	3.7	7	132	8⅛	8⅛	8⅛— ⅛
9¼	4⅝	Mattel	wi			115	5¼	5¼	5¼+ ½
27⅝	22⅛	MayDS	1.60	5.3	7	495	27⅛	26⅞	26⅞+ ½
25¼	18⅝	MayerO	1	4.1	9	30	24⅝	24⅝	24½
5⅝	3½	MaysJW			4	36	4½	4⅛	4½
27⅝	22½	Maytg	1.60	6.9	9	56	26¼	26	26¼+ ½
31½	15⅝	McDermt	1

International Bonds Traded in Europe

Midday Indicated Prices, June 7, 1979

Dollar Bonds

8-87	92	93	
ad 7½-82	95¼	96¼	
Allis 8¼-82	94⅝	95⅛	
Allis 8¼-91	94¼	95¼	
Allis 8½-92	90⅝	91⅝	
o 7¾-84	91½	92¼	
nya 8½-92	92¼	93¼	
d. 7¾-85	90⅝	91⅝	
an 7¾-87	90	91	
8¼-93	96¼	97¼	
9¼-84	94⅝	95⅝	
ns 9-81	98½	99½	
nt Hill 8-85	92½	93½	
arm. 8¼-84	95¾	96¾	
ctl R 8¾-86	92½	93½	
ontana 8¾-81	97¼	98¼	
vest 8¾-84	93¾	94¾	
ood 7½-91	86¾	87¾	
o 8-86	95	96	
Hom 8-87	92¼	93¼	
1¼-82	96	97	
1¾-84	91½	92½	
3¾-87	97¾	98¾	
7¾-87	90¼	91¼	
7¾-83	95¼	96¼	
8¾	93	94	
Hull 8¼-85	93½	94½	
1¼-87	92¼	93¼	
ton 8½-89	92½	93½	
1-86 nov	97¼	98¼	
Uma 8½-83	97	98	
82	94½	95½	
Chic 7-88	97½	98½	
Harlem 8½-87	91	92	
9¾-83	99½	100½	
Nestle 8¼-84	93	85	
rsbury 8¼-84	95¾	96¾	
Oil 9½-86	97¼	98¼	
1-87	92¼	93¼	
ndo 9-82	97	98	
ersseas 9-83	96½	97½	
W. 8½-85	92½	93½	
ions 8-83	95¾	96¾	
ebo 8¾-83	96	97	
lin 9¼-86	98¼	99¼	

Midld Intl 8¾-86	95½	96½	
Montreal 9¼-83	98	99	
N Cal Board 8-87	90¾	91¾	
NatWest 9-86	96½	97½	
N Brunswick 9-83	98	99	
N Brunswick 8-84	92	93	
NZealand 9¼-82	98½	99½	
NZealand 8½-83	96	97	
Nra Kombk 8½-91	93	94	
Norskhydr 8½-92	90½	91½	
Norway 8½-81	97¼	98¼	
Occidental 9¾-83	98	99	
Offshr Mkt 8¼-85	92½	93½	
Ontario 9-83	98¼	99¼	
Ontario Hyd 8-87	91	92	
ProvSaskat 8¾-86	94½	95½	
QuebProv 8½-81	97	98	
QuebProv 9-83	98¼	99¼	
Ralston 7½-87	90½	91½	
SoabScania 8½-89	91	92	
S.A.S. 8-85	93	94	
Shell 8-84	94½	95½	
Shell 7½-87	92¼	93¼	
Singer 8¾-82	95	96	
Sfind 8¾-86	97½	98½	
Sweden 8¼-87	92	93	
SwedishCo. 7¾-82	94¼	95¼	
TMoy 7¾-87	89¾	90½	
Textron 7¾-87	90¾	91¾	
Transocean 8-86	95	96	
Transocean 7½-87	90¾	91¾	
UnOil 7½-87	93	94	
Utah 8-87	92	93	
Vwagen 7¾-87	98¼	99¼	
Volvo (Mor) 8-87	90½	91½	

Convertible Bonds

Amexco 4¼-87	74½	76½	
Baker 5½-93	127½	129½	
Beatrice 6¼-91	180	182	
Beatrice 4½-92	83½	85½	
Beecham 6¾-92	101½	102½	
Boots 6¾-92	100¾	101¾	
Borden 6¾-91	98	100	
Borden 5-92	86	88	

Broadhale 4¾-87	71½	73½	
Carnation 4-88	69½	71½	
Chevron 5-88	153	157	
Chrysler 4¾-88	66½	68½	
Chrysler 5-88	68½	70½	
Coke Bott. 6¾-93	89½	91½	
Cr Suisse 4¼-91	113½	115½	
Commint 6¼-86	89½	91½	
Dortmd 4¾-87	79½	81½	
EastKodak 4½-86	81	82	
Ford 6-86	87	89	
Ford 5-88	79	81	
GenElec 4¼-87	75½	77½	
GenFoods 4¾-82	88	90	
Gillette 4¾-82	85	87	
Gillette 4¾-87	73	75	
GulWestn 5-86	85	87	
Honeywell 6-86	84	86	
ICI 4¾-87	92¾	93¾	
INA 6-87	92	94	
ISE 6¾-89	86	88	
ITT 4¾-87	72	74	
Jusco 6-92	102½	103½	
Komatsu 7¾-98	125¾	126¾	
Morson JP 4¼-87	90½	92½	
Nabisco 5¼-88	93½	95½	
Owens Ill 4½-87	99	101	
Penney JC 4½-87	71	73	
RCA 5-88	81½	83½	
Revlon 4¾-83	134	136	
Revlon 4¾-87	114	116	
Sperry 4¼-88	94½	96½	
Squibb 4¼-87	79	81	
Texaco 4½-88	76	78	
Texas 7½-93	89	91	
Tyco 8½-88	100½	102½	
UnCarb 4¾-82	89	91	
WarnLamb 4½-87	73½	75½	
WarnLamb 4¼-88	70	72	
Xerox 5-88	74	76	

Bondtrade—Index

Basis Dec. 31, 1966—100)

	Mod.	Long.
Thursday	99.26	89.26
Previous	99.09	88.99

Toronto Stocks

Closing Prices June 6, 1979

...tions in Canadian funds. ...otes cents unless marked $

	High	Low	Close	Ch'ge
Abitibi	$10	17¾	18	+ ¼
Agnico- E	8¼	8	8	
Agra Ind A	6¾	6½	6¾	
Alta Gas A	$23¾	22	22¾	+ ¼
Alas Cent	$24	24	24	— ¼
Am Bonza	$19¾	18¾	19¾	+1½
Andres W A	$15¼	15½	15½	
Asbestos	$44	42	44	+1½
Atco A	$23½	22½	23½	+ ¾
BP Can	$28½	28	28½	+ ¾
Bank N S	$22¾	22½	22¾	+ ¾
Beth Cop A	$20½	20½	20½	— 1
Block Bros	$9	9	9	— ¾
Brasilr Res	$14¾	14½	14¾	+ ¼
Bramalea	$21½	21	21½	— ¾
Brenda M	$18¼	17¾	18¼	+ ¼
BCFP	$21	20¾	21	
BC Phone	$18	18	18	
Brunswk	$7½	7	7½	+ ½
Budd Can	$8¼	8	8¼	+ ¼
CAE A	$33	32	32½	+ ½
Cad Prv	$17½	17	17½	+ ¼
Cal Pow A	$46½	45¾	46¼	+ ¼
Camflo	$14¼	13¾	14	+ ¾
C Nor West	$13½	12½	12½	+ ¾
C Packrs	$27	26½	27	— ¼
Can Perm	$21½	20¾	21½	+1¼
Can Trust A	$26¾	26¾	26¾	
C Tung	$25½	25¼	25½	+ ½
CCabley A	$21½	21¼	21½	
Cdn Cel	$9½	9	9½	+ ¼
CGE	$30½	30½	30½	+ 1
Cl Bk Com	$25¾	25¾	25¾	
Cdn Tire A	$31¾	30¾	30¾	— ¾
C Utilies	$20	19¾	19¾	— ¼
Candel Oil	$40	39¾	40	
Cassiar	$13	11¾	12	+ ¼
Celanese	$5¼	5¼	5¼	
C Holiday I	9¾	9¾	9¾	
Con Distrb	$18½	18¼	18¼	+ ¼
Cons Gas	$23½	23½	23½	+ ¾
Con Fordy	346	320	320	—10
Conwest	5¾	5¾	6	+ ¾
Cosmos R	9¾	8¾	8¾	+ ¼
Crown I	7¾	7¼	7¼	— ¼
Crush Intl	$14¼	14¼	14¼	— ¼
Cyprus	$14¾	14¼	14¼	
Czar Res	9¾	8½	8¾	— ¼
Dom Dev	$15½	14¾	15½	+ ¾
Dom A	5¾	7¼	7¾	
Donlsn	$22½	21¾	22¾	+ ½
Dickson	$8½	8¼	8½	+ ¼
D Bridge	$37	36½	37	+ ½
Dofasco A	$35	34¾	35	+ ½
Dom Store	$18¾	18½	18½	— ¼
Du Pont	$22½	22½	22½	+ ¼
Dylex L A	$14¾	14¾	14¾	— ¼
East Mal	190	190	190	+ 5
Electhom A	$5¾	5¾	5¾	
Emco	$18¾	10¾	10¾	+ ¼
Falcon C	$7¼	6¾	7	+ ¼
Fibry Nlk A	$64½	61	63¼	+2½
Fed Ind A	$7	6¾	7	+ ¼
Fed Plan	$41½	37½	41½	+4½
Francona	$12¼	10¾	11¾	+ 1
Fraser A	$15	15	15	
G M Res	480	450	480	+35
G Distrb A	8¾	8¼	8¼	
G Distrb w	270	266	270	+ 4
Gibraltar	$7¾	7¾	7¾	+ ¼
Goodyear	$22	22	22	+ ¾
Groff G	$16½	16½	16½	— ¾
Granduc	154	145	145	— 6
GI Dil Sds	$16¾	16	16½	+ ½
GL Forest	$41½	41½	41½	
Greyhnd	$22	21¾	22	
Hard Crp A	335	330	330	— 5
Harlequin	$14¾	14¾	14¾	+ ¼
Hawker A	$12¾	12½	12½	+ ¾
Hayes D	$12	11¾	11¾	— ¼
H Bay Co	$28	27¾		— ¼
IAC	$17¾	17¾		+ ¼
Indal	$15½	15½	15¾	
Indusmin	$21¾	21½	21¾	+ ½
Imasco	$14¾	14	14¼	+ ¾
Inland Gas	$14¼	14	14¼	+ ¾
Int Mogul	$6¾	6¾	6¾	+ ½
Inter Pipe	$20¾	19¾	20¾	+ ¼
Ivaco A	$16¾	16½	16¾	— ½
Jannock	$24	22½	22½	— ½
Kaiser Res	$23	22¾	22¾	
Kam Kolla	55	490	4	+ 5
Kelsey H	$25	25	25	+ ½
Kerr A A	9¾	9	9¼	+ ¼
Labatt A	$21¼	20¾	21¼	+ ½
Lab Min	$39½	39¾	39½	— ½
Locana	$5¾	5½	5¾	
LDmt Cem	$5½	5¾	5½	+ ½
LL Loc	398	360	385	+15
Lob Co A	425	420	425	— 5
Lob Co B	425	425	425	
Loeb M	$11¾	11¾	11¾	

	High	Low	Close	Ch'ge
3550 MICC	$13¾	13¼	13¼	
24455 MB Ltd	$22½	22¼	22¼	+ ¼
100 McGrow H	9¾	9¾	9¾	
2294 Molson A	$25¾	25¾	25¾	
425 Molson B	$24¼	24¼	24¼	+ ½
21249 Moore	$29¾	29¼	29¼	+ ¼
58475 Murphy	$20	18	19½	+1¾
100 Nat Trust	23	23	23	— ½
38635 Noranda	$40½	39¾	40½	+ ¾
189272 Norcen	$24½	22½	24	+1¼
7250 NTecm B w	$24¼	24½	24¼	+ ¾
96243 Oakwood P	$7¾	7	7¼	+ ¼
105755 Ocelot B	$16¾	16	16¾	+ ¾
41215 Oshawa A	8	8	8	
17226 Pipe Pel	$16¾	15¾	15¾	+ ¼
37100 Pamour A	67	64	67	+ ½
575 PanCan P	$53¾	53	53¾	+ ¾
55463 Pembina	$10½	9¾	10	+ ½
9169 Petrofina	$35¾	34½	35¾	+ ¾
8533 Peyto Oils	$12¾	11¾	12	+ ¾
3525 Pine Point	$33¾	33	33¾	— ¼
55850 Place G	330	310	315	—10
3745 Placer	$27	26¾	26¾	— ¼
2930 Ram	$9¾	9½	9¾	+ ½
450 Redpath	$14¾	14¾	14¾	
3737 Rd Stanks A	$10¼	10	10¼	+ ¾
2400 Reichhold	$12¾	12½	12¾	
18555 Revnu Prp	175	173	174	— 3
700 Roman	$28	27¾	28	+ ¾
800 Rothman	$21¼	21	21¼	
22300 Scepter	$7¼	7¼	7¼	+ ¾
6100 Scotia A	$13¾	13½	13¾	+ ¼
69451 Shell Can	$24¾	24	24¼	+ ¼
49975 Sherrlh	$9¾	9¾	9¾	— ½
100 Sigma	$27½	27½	27½	+ ¼
6930 Simpsons	260	250	250	—10
5125 Simpsn S A	$9½	9	9½	
3450 Slofer SH	$18½	18¼	18½	
2470 Southm	$27¾	27	27¾	+ ¾
400 St Brodcst	$13¾	12¼	12¼	
21430 Stelco A	$29¾	29½	29¾	+ ½
600 Steep R	390	390	390	
32250 Sulnaire B	$12½	12	12½	+ ¾
5 Toro	13	13	13	— ¾
1082 Teck Cor A	$12¾	12½	12¾	+ ¼
12073 Teck Cor B	$12¾	11¾	12¼	— ¼
1200 Teledyne	$12	12	12	— ½
11070 Tex Can	$67¼	66½	67	— ¾
2050 Thom N A	$16¾	16¼	16¼	— ½
15175 Tor Dm Bk	$21¾	21¾	21¾	+ ¼
2000 Torstar B	$18½	18¼	18½	+ ¾
5725 Traders A	$17	16¾	17	+ ½
11690 Trns Mt A	$11¼	11	11	— ½
10419 TrCan PL	22	21¾	21¾	— ½
12928 Turbo Cl B	$13¾	12¾	12¾	— ¼
27035 UGas A	$11	10¾	10¾	+ ½
14743 Union Oil	$25½	25	25¾	+ ½
1220 U Keno	$14¾	14¾	14¾	+ ¾
3700 U Siscoe	$9¾	9¾	9¾	
100 Un Corbld	$21¾	21¾	21¾	— ¾
4300 Versti Cor	$14¾	14¼	14¾	+ ½
1300 Vestaron	$13¾	13½	13¾	
180 Voyager P	$24¼	24¼	24¼	
900 Weldwod	$19¾	19¾	19¾	— ¼
6100 West Mine	$5¾	5	5¼	+ ¼
100 Westco	$25½	25½	25½	+ ¾
16771 Woodwd A	$22½	22¼	22½	+ ¼
22971 Yk Bear	9¾	8¾	8¾	+ ½

Total sales 6,316,650 shares

Montreal Stocks

Closing Prices June 6, 1979

Quotations in Canadian funds. All quotes cents unless marked $

Sales	Stock	High	Low	Clos	Chg.
500	Atpoma St	$29½	29½	29½	— ¼
6674	Bnk Mont	$22¾	22¼	22½	— ¼
200	Can Cmt	$13	13	13	
481	Can So Rx	579	78¾	79	+3
100	Canron	$29½	29¼	29¼	+ ¼
2300	Can Both	$13	12¾	13¾	
900	Dom TxtA	$13¾	13¾	13¾	
3900	FCA Int	315	310	310	—10
500	Power Cp	$28	28	28	+1
28676	Royal Bk	$39	38½	38¾	+ ½
2765	Roy Trstco	$16½	16½	16½	+ ½
1400	Zellers	5 9¾	9¾	9¾	

Total sales 767,306 shares.

Canadian Indexes

June 7, 1979

	Close	Previous
Montreal	267.90	264.54
Toronto	1,570.90	1,553.70

Montreal : Stock Exchange Industrials Index.
Toronto : TSE 300 Index.

ÖSTERREICHISCHE ALPINE MONTANGESELLSCHAFT

Loan of 1965-1985 5 ¾ %
Ninth drawing of May 16, 1979

It is brought to the attention of holders of the above mentioned bonds that the amortization quota of $US 822,000 maturing June 15, 1979 has been effected, partially through repurchasing on the market and partially through drawing by lot.

From this drawing, it has resulted that the bonds of $US 1,000 comprised between the numbers 4617 to 4622 inclusive and the bonds of $US 250 comprised between the numbers 1 to 141 inclusive, 182 to 746 inclusive and 11,809 to 12,000 inclusive will be reimbursable at par as of June 15, 1979 with the following institutions:

Banque Internationale à Luxembourg S.A., Luxembourg
Banque Bruxelles Lambert S.A., Bruxelles
Kredietbank S.A., Bruxelles
Société Générale de Banque, Bruxelles
Amsterdam-Rotterdam Bank N.V., Amsterdam
Algemene Bank Nederland N.V., Amsterdam
Pierson, Heldring & Pierson, Amsterdam
Crédit Commercial de France, Paris
Hill Samuel & Co., Ltd., Londres
Kleinwort, Benson Ltd., Londres
Samuel Montagu & Co., Ltd., Londres
Kredietbank S.A. Luxembourgeoise, Luxembourg
Creditanstalt-Bankverein, Vienne
Oesterreichische Länderbank AG, Vienne
Bank of America NT & SA, San Francisco
Morgan Guaranty Trust Company of New York, New York.

Coupons maturing June 15, 1979 are payable with these same institutions.

It is reminded that the following bonds, drawn at previous drawings have not yet been presented for payment:

	$US 250.-	$US 1,000.-
Maturity 15-6-1974	7609-7617	—
15-6-1977	4427-4442	2099
		2114-2126
		2165-2166
15-6-1978	—	2406
		2666

Amount remaining outstanding after June 15, 1979:
$US 6,024,000 represented by 4,518 bonds of $US 1,000;
6,024 bonds of $US 250.

BANQUE INTERNATIONALE A LUXEMBOURG
Société Anonyme
Trustee

Luxembourg, May 31, 1979.

Currency Rates

By reading across this table of the June 7, 1979 's closing inter bank foreign exchange rates, one can find the value of the major currencies in the national currencies of each of the following financial centers. These rates do not take into account bank service charges.

	$	£	DM	FF	Lit.	Gldr.	BF com.	SwissF.	Can.Dr.
Amsterdam	2.0935	4.334	109.54 *	47.375 *	0.2454	—	6.8120 *	120.895 *	37.950 *
Brussels (a)	30.7438	63.5925	16.074	6.95175	3.602 *	14.68075	—	17.7425	5.5695
Frankfurt	1.9118	3.955	—	43.21 *	2.238 x	91.38 *	6.221 *	110.44 *	34.645 *
London (b)	2.06675	—	3.949	9.1510	1.7625.2	4.3345	63.68	3.5825	11.4270
Milan	854.70	1,766.25	446.54	193.15	—	407.78	27.78	492.69	154.74
New York (c)	—	2.0670	1.9095	4.4250	.852.65	2.0930	30.69	1.7305	5.52275
Paris	4.42575	9.1475	231.26 *	—	5.179 x	211.22 *	14.3895 *	255.24 *	80.12 *
Zurich	1.7291	3.57405	90.47825*	39.07585*	0.2024	82.62785*	5.6204 *	—	31.31 *
ECU	1.3168	0.637767	2.52088	5.87749	1125.53	2.76001	40.5113	2.28359	7.27333

The following are dollar values as quoted on the London foreign exchange market: Danish krone: 5.5275 ; Escudo: 49.95 ; Israeli £: 24.05 ; Peseta: 66.12 ; Schilling: 14.1105 ; Swiss franc: 4.3845 ; Yen: 220.125 ; Norw. krone: 5.1905 ; Fin mark: 3.9945 ; Belgian financial franc: 31.885 ; Hong Kong $: 5.1390 ; Singapore $: 2.2048 ; Canadian $: 84.875 U.S. cents.

(a) Commercial franc. (b) Amounts needed to buy one pound. (c) Amounts needed to buy one dollar. (*) Units of 100. (x) Units of 1,000.

ECU : European Currency Unit, as quoted in Brussels.
Closing rates or official fixings for European centers; 2pm EST rates for New York.

European Gold Markets

June 7, 1979

	A.M.	P.M.	N.C.
London	279.30	276.05	—3.95
Zurich	280.125	276.125	—3.25
Paris (12.5 kilo)	294.86	290.89	—1.40

Official morning and afternoon fixings for London and Paris, opening and closing prices for Zurich.
U.S. dollars per ounce.

European Markets

(Yesterdays closing prices in local currencies)

Amsterdam

AKZO	28.30
Albert Heijn	90.70
Algemene	247.00
Amrobank	49.50
A'Dam Rub	50.10
Fokker	34.50
Heineken	91.30
Hoogovens	58.20
K.L.M.	104.30
Nat. Nedder	103.10
Pakhoed	45.90
Philips	28.90
Robeco	161.70
Rolinco	131.50
Rorento	111.30
Royal Dutch	142.50
Unilever	122.40
Van Ommer	178.00
VMF-Stork	42.00

Brussels

Arbed	2,530
GBL (8.lomb)	1,760
Cockerill	590
Electrobel	6,880
Gb-Inno-BM	2,415
Hobokas	3,105
Petrofina	4,825
Ph. Gevaert	1,284
Soc. Generale	2,120
Solvay	2,560
Un. Miniere	846

Frankfurt

A.E.G.	44.70
B.A.S.F.	131.00
Bayer	130.80
Commerzbnk	106.30
Cont. Gummi	54.50
Dolmler	267.50
Demag	145.00
Deutsche Bnk	254.50
Dresdner Bnk	202.00
Hoechst	124.30
Hoesch	42.10
Karlsladt	286.00
Kauhof	208.00
K.H.D.	171.70
Lufthansa	67.50
Mannesman	143.00
Mellalliesell.	238.50
Neckarsulm	152.00
RWE.new	144.00
Scherling	229.00
Siemens	235.60
Thyssen	84.00
Varta	144.00
Veba	145.70
Volkswagen	211.00

London

Anglo-Am Cp	14.42
Anglo-Am	8.46
Barclays Bnk	4.63
Beecham Gp	5.71
BICC	1.41
Books	2.01
Bowater	1.81
BAT Ind.	2.88
BOC Int'l	8.79
Brit. Pet.	12.40
Burmah	1.32
Cadbury Sc.	8.65
Charterd	1.57
Courtaulds	1.82
De Beer D	4.54
Decca Rec	3.45
Distillers	2.19
Dunlop	0.75
E Mus Ind	1.86
GEC	3.94
Free St Ged	26.00
GKN	2.82
Glaxo Gp	4.80
Gold Fields	2.61

Gt Un St	4.06
Guinness	1.86
Hawker Sidd	2.18
Hudson Bay	$ 14.00
Imp.Chem.Ind.	3.80
Imps	0.93
Marks & Spen.	1.17
Metal Box	3.34
Michels	0.64
Plessey	1.15
Rand Mines	0.53
Rank Org.	2.38
Royal Dutch	14.50
R.T.Z.	3.17
Shell	3.95
Thorn (A)	4.53
Tube Invest.	4.02
Union Corb.	4.40
Vickers	1.88
War Loiz	0.22¼
West Deep	$ 14.00
West Drief	$ 48.00
West Hold	$ 33½
West Min	1.49
Woolworth	0.80
ZCI	0.11½

Milan

Bastogi	781.00
Ed Bsk	1,700.00
EricMarelli	248.00
Fiat	2,659.00
Finelder	148.00
Generali	43,250.00
IFI	2,280.00
Italgas	797.00
Italstder	480.00
LaRinas	123.00
Montedis	186.50
Olivetti	1,697.00
Pirelli	1,640.00
Snia Visco	171.00

Paris

Air Liquide	297.00
Aquitaine	645.00
BSN	591.00
Carrefour	1,490.00
Clm Lofarge	232.50
Cie Bancaire	382.00
CFP	182.00
CGE	386.00
CCF	149.00
Fonda	240.00
Gen Occident	253.50
Imetal	76.00
L Oreal	634.00
Moch Bull	58.00
Michelin	957.00
Mat Hein	452.00
Moulinex	88.70
Peribos	303.50
PUK	93.80
Penarroya	64.90
Perrier	284.50
Peugeot	326.00
Rh Poulenc	124.00
Sacilor	77.30
St Gobain	130.50
Suez	295.00
Telemecan	672.00
Thomson	284.00
Usinor	10.80

Zurich

Alusuisse	1,190
Buehrle	2,485
B Boveri	1,725
Cib Geigy	1,235
Cr Suisse	2,120
Fisher	710
Hoffrch N	7,450
Nestle	3,375
Sandoz	4,250
Sfe B. Suisse	346
Sulzer	2,540
U.B. Suisse	3,070

Market Summary

NYSE Most Actives

June 7, 1979

	Sales	Close	Chg.
Reynold Ind	1,531,900	56½	+ ¼
McDonnD	1,302,600	20¼	— ¾
CassonsWld s	1,238,800	33¼	+3½
CharterCo	759,200	24½	+ ¾
Sterl Drug	679,200	19¾	— ¼
Heller Int	376,900	27	+ ¾
CharterCo wt	340,600	20¼	+1
Chemn Sek	336,700	12¼	+ ¾
Texaco Inc	326,100	26¾	+ ¾
Nwst Airl	306,900	28¾	+ ½
Warn Lamb	304,100	23¾	+ ½
UAL Inc	290,800	24¾	— ¼
SearsRoeb	289,600	18¾	
Tesoro Pet	285,100	14¾	+ ¾
IBM s	274,600	77¾	+ ¾

	Today NYSE Close	Prev. Nationwe Close
Volume (in millions)	43.38	44.94
Advanced	1,097	1,003
Volume Up (in millions)	26.76	26.11
Declined	489	515
Volume Down (in millions)	9.88	8.92
Unchanged	408	484
Total Issues	1,994	1,922
New highs	71	65
New lows	14	57

Dow Jones Averages

	Open	High	Low	Close	Chg.
30 Ind	837.46	842.78	833.14	836.97	+1.47
20 Trn	238.90	241.87	236.88	239.24	+1.12
15 Uti	103.26	104.40	103.01	103.79	+0.71
65 Stk	291.91	294.44	290.28	292.14	+1.91

Standard & Poors

	High	Low	Close	N.C.
Composite	102.54	101.15	101.79	+0.49
Industrials	114.76	112.53	113.23	+0.51
Utilities	50.63	49.88	50.32	+0.40
Finance	12.39	12.22	12.31	+0.08
Transp.	14.86	14.54	14.70	+0.06

NYSE Index

	High	Low	Close	N.C.
Composite	57.61	57.52	57.53	+0.30
Industrials	63.71	63.58	63.60	+0.34
Transp.	47.78	47.54	47.56	+0.10
Utilities	38.34	38.27	38.28	+0.19
Finance	60.92	60.80	60.87	+0.36

Odd-Lot Trading in N.Y.

	Shares Buy*	Sales	*Short
June 6	167,387	356,451	1,206
June 5	157,570	365,633	1,394
June 4	135,726	311,809	1,502
June 1	115,859	281,854	816
May 31	124,368	308,622	855

*These totals are included in the sales figures.

American Most Actives

	Sales	Close	Ch.
GtBas Pet	1,043,400	12¼	+ ⅝
Rusco Ind	239,600	2¼	+ ¼
HouOil'M	234,400	26¼	+ ⅝
IntrCityGs g	232,800	13¼	+ ¼
Goldfield Cp	209,600	1¼	+5-16
Dynalect Cp	190,300	9¾	+1
DomePetr gs	189,100	42¾	+3¾
ResrtIntA	180,400	42¾	—1½
AplidDrncs	113,100	10¾	+ ½
Syntex Corp	112,800	36	+ ¼

	Today AMEX Close	Prev. Nationwe Close
Volume (in millions)	7.34	7.34
Advanced	343	355
Volume Up (in millions)	4.99	5.12
Declined	298	251
Volume Down (in millions)	1.66	1.51
Unchanged	259	264
Total Issues	840	870
New highs	N.A.	34
New lows	N.A.	4

AMEX Index

High	Low	Close	Chg.
196.63	191.93	194.52	+2.68

NYSE Nationwide Trading Closing Prices June 7

Tables include the nationwide prices up to the closing on Wall Street.

(Continued from Page 18)

12 Month High	Low	Stock	Div.	Sls. in S	Yld.	P/E	100s.	High	Low	Close	Ch'ge Prev. Close
19¾	8¾	UnIlInn	.22	1.9	5	40	13	11¾	11¾	+ ¼	
13⅝	11	UJerBk	1.04	9.3	5	36	11⅝	11⅛	11⅛	+ ⅛

NEW YORK, June 7 — *Cash prices in primary markets as registered today in New York were:*

Commodity and unit	This	Year Ago
FOODS		
Cocoa Accra, lb.	N.Q.	N.Q.
Coffee 4 Santos, lb.	1.50	1.80
TEXTILES		
Printcloth 64-60 38½, yd.	0.44	0.44
METALS		
Steel billets (Pitt.), ton	334.00	306.50
Iron 2 Fory. Phila., ton	227.36	214.76
Steel scrap No. 1hvy Pitt.	114-115	72-73
Lead spot, lb.	35-38	0.31
Copper elect., lb.	84¾-87¼	0.67¾
Tin (Straits), lb.	7.4411	5.8936
Zinc, E. St. L. Basis, lb.	0.39½	0.29
Silver N.Y., oz.	8.370	5.245
Gold N.Y., oz.	276.05	182.95
COMMODITY Indices		
Moody's Index (Base 100 Dec. 31, 1931)		
June 7, 1979	1,869.58	921.40

p — Preliminary
f — Final
* — Nominal

NEW YORK FUTURES
June 7, 1979

	Open	High	Low	Close	Chg.
MAINE POTATOES 50,000 lbs.; cents per lb.					
Nov	6.37	6.37	6.35	6.37	+0.02
May	8.99	8.99	8.98	8.99	+0.02

Est. sales: 17 sales Wed. 99

Total open interest Wed. 1,735 up 43 from Tues.

COFFEE 'C' 37,500 lbs.; cents per lb.

Jul	183.25	184.90	182.50	184.49	— 2.12
Sep	184.37	184.37	184.00	184.37	+ 6.00
Dec	181.19	181.19	181.19	181.15	+ 6.00
Mar	178.92	178.92	178.92	178.92	.
May	179.00	179.00	179.00	179.00	.
Sep	182.00	183.00	180.00	180.50	.

Est. sales: 2,480 sales Wed. 1,024

Total open interest Wed. 10,128 off 4 from Tues.

SUGAR NO. 11 112,000 lbs.; cents per lb.

Jul	8.23	8.37	8.10	8.13	—0.14
Sep	8.63	8.74	8.52	8.55	—0.11
Oct	8.85	8.95	8.72	8.75	—0.12
Mar	9.54	9.70	9.48	9.48	—0.07
May	9.76	9.92	9.70	9.71	—0.06
Jul	10.00	10.09	9.94	9.94	—0.08
Sep	10.17	10.27	10.15	10.15	—0.04
Oct	10.36	10.35	10.24	10.21	—0.07

Est. sales: 5,325 sales Wed. 6,675

Total open interest Wed. 37,976 up 717 from Tues.

London Metals Market

(Figures in sterling per metric ton)
(Silver in pence per troy ounce)
June 7, 1979

	Today Bid	Today Asked	Previous Bid	Previous Asked
Copper wire bars:				
Spot	877.50	878.00	875.00	876.00
3 months	889.50	890.50	887.00	887.50
Cathodes: spot	853.00	855.00	850.00	851.00
3 months	874.00	875.00	871.00	872.00
Tin: spot	7,460.00	7,470.00	7,380.00	7,520.00
3 months	7,170.00	7,180.00	7,140.00	7,170.00
Lead: spot	700.00	702.00	681.00	685.00
3 months	642.00	643.00	625.50	626.00
Zinc: spot	367.00	368.00	366.50	367.00
3 months	378.50	379.00	377.50	378.00
Silver: spot	404.20	404.40	411.50	411.80
3 months	415.60	415.70	423.00	423.10
Nickel: 3 months	3,360.00	3,370.00	3,415.00	3,425.00

London Commodities

(Figures in sterling per metric ton)
June 7, 1979

	High	Low	Close (Bid-Asked)	Previous (Close)
SUGAR				
Aug	109.50	107.10	108.20	108.25	109.20	109.25
Oct	113.50	111.10	112.25	112.40	113.25	111.75
Dec	116.50	114.90	116.05	116.15	117.00	117.05
Mar	121.25	119.50	120.70	120.75	121.40	121.45
May	122.25	122.00	123.25	123.45	123.95	124.00
Aug	N.T.	N.T.	126.75	127.00	127.40	128.00
Oct	N.T.	N.T.	129.50	130.50	130.00	131.00

2,074 lots of 50 tons.

COCOA

Jul	1,703	1,690	1,700	1,702	1,699	1,700
Sep	1,734	1,715	1,728	1,729	1,728	1,729
Dec	1,794	1,780	1,793	1,794	1,783	1,785
Mar	1,803	1,793	1,805	1,806	1,796	1,797
May	N.T.	N.T.	1,820	1,827	1,813	1,814
Jly	N.T.	N.T.	1,832	1,847	1,833	1,834
Sep	1,850	1,848	1,849	1,850	1,840	1,834

842 lots of 10 tons.

COFFEE

Jul	1,845	1,830	1,843	1,844	1,858	1,859
Sep	1,868	1,840	1,856	1,857	1,874	1,877
Nov	1,884	1,854	1,874	1,871	1,889	1,882
Jan	1,894	1,860	1,876	1,877	1,891	1,894
Mar	1,865	1,850	1,860	1,865	1,885	1,888
May	1,860	1,855	1,850	1,860	1,880	1,884
Jly	N.T.	N.T.	1,844	1,845	1,871	1,878

7,148 lots of 5 tons.

Paris Commodities

(Figures in French francs per metric ton)
June 7, 1979

	High	Low	Close	Ch. (Bid-Asked)
SUGAR				
Jly	N.T.	N.T.	940	970	—10
Aug	985	975	978	982	—13
Oct	1,025	1,017	1,015	1,020	—15
Nov	N.T.	N.T.	1,015	1,023	—10
Dec	N.T.	N.T.	1,035	1,045	—15
Mar	1,080	1,075	1,070	1,080	—8
May	1,103	1,103	1,090	1,095	—30
Jly	N.T.	N.T.	1,095	1,115	—10

114 lots.

COCOA

Jul	N.T.	N.T.	1,545	1,485	+5
Sep	1,585	1,580	1,583	1,585	Unch.
Dec	1,624	1,610	1,614	1,620	Unch.
Mar	1,605	1,620	1,620	1,630	+5
May	N.T.	N.T.	1,630	1,635	+5
Jly	N.T.	N.T.	1,635	1,645	+10

41 lots

Eurocurrency Interest Rates

June 7, 1979

	Dollar	D-Mark	Swiss Franc	Sterling	French Franc
1 M*	10¾ - 10½	5 9/16 - 5 11/16	1¾ - 2	11¾ - 11⅝	11¾ - 11⅝
2 M.	10½ - 10¼	5 13/16 - 5 15/16	1¾ - 2	11⅝ - 12¼	11¾ - 11¾
3 M.	10 9/16 - 10 11/16	6 - 6¼	1 15/16-2 1/16	11⅞ - 12¼	11¾ - 11⅞
6 M.	10¼ - 10⅛	6⅛ - 6¼	2⅛ - 2½	13 - 12¾	11⅞ - 11½
1 Y.	10¼ - 10⅛	7 - 7¼	2¾ - 3	11 15/16 - 12¾	11 - 11¾

12.1% TAX FREE TO US

untaxed from British Government securities

Schlesinger Gilt Fund Limited currently yields 12.1%, and because the Fund is non-resident the yield is *paid gross* to all investors (outside Jersey).

Dealing prices are calculated daily and advertised in the Financial Times.

The Fund is advised by the Schlesinger London-based investment team which manages over £120 million. A major advantage of the Schlesinger Gilt Fund is that you or your bankers only complete one simple application form, and the gross payment of dividends and all the administration is handled by Schlesingers.

Quarterly payments

Dividends are paid every quarter on 15th March, 15th June, 15th September and 15th December.

A current opportunity for capital growth

In our opinion long-dated British Government securities currently represent an outstanding investment opportunity, particularly compared with other international bonds and deposit rates. The decline in U.K. inflation over the last year, the recent strengthening of sterling, and the benefits of North Sea oil, are all factors which are improving the outlook for the U.K. economy and thus gilts. Our PIMS Reports (see below) expand these arguments.

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U.K. Gilts combine security with very high interest.

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To: Robert Hesse, Director, Schlesinger International Management Ltd., 41 La Motte Street, St. Helier, Jersey, Channel Islands.

Please send me allied prospectus and latest PIMS report on the Schlesinger Gilt Fund, together with your brochure on Schlesinger International.

I would like further information on your discretionary Private Portfolio Management Service. INT 08/6

Name (capitals please)

Address

Schlesinger Gilt Fund

U.S. Commodity Prices

COCOA 30,000 lbs.; cents per lb.

	Open	High	Low	Close	Chg.
Jul	153.40	155.00	152.40	154.40	+1.00
Sep	156.75	157.99	155.50	157.60	+1.00
Dec	159.40	160.80	158.70	160.40	+1.00
Mar	160.40	161.80	160.00	161.40	+0.95
May	161.15	162.50	161.15	162.50	+0.95

Est. sales: 582 sales Wed. 610

Total open interest Wed. 7,998 off 19 from Tues.

ORANGE JUICE. 15,000 lbs.; cents per lb.

Jul	98.90	98.95	97.75	98.00	—0.90
Sep	99.60	99.40	98.70	99.00	—0.50
Nov	98.90	98.90	98.30	98.40	—0.50
Jan	98.75	98.25	97.40	97.40	—0.80
Mar	98.75	99.90	98.50	98.50	—0.80
May	99.30	99.30	99.30	99.25	—0.70

Est. sales: 400 sales Wed. 371

Total open interest Wed. 7,468 up 37 from Tues.

COTTON, No. 2. 50,000 lbs.; cents per lb.

Jul	63.50	63.90	63.02	63.82	—0.15
Oct	64.60	64.65	64.16	64.44	—0.51
Dec	63.30	63.38	62.80	63.12	—0.33
Mar	64.25	64.20	63.20	64.20	—0.20
May	65.00	65.30	64.75	65.00	—0.30
Jul	66.00	66.00	66.00	65.80	—0.50

Est. sales: 6,300 sales Wed. 6,273

Total open interest Wed. 39,789 up 1,159 from Tues.

COPPER 25,000 lbs.; cents per lb.

Jul	79.00	82.00	78.90	82.00	+2.50
Sep	80.10	82.90	80.00	82.90	+2.30
Dec	81.20	84.00	81.00	83.80	+2.10
Jan	81.15	81.15	81.15	83.95	+2.05
Mar	81.90	84.60	81.90	84.40	+2.00
May	84.10	84.10	84.10	84.65	+1.95
Jul	82.75	83.20	81.60	84.85	+1.80
Dec	83.10	83.30	82.00	83.30	+1.80
Jan	83.10	83.15	83.10	85.35	+1.80
Mar	83.45	83.45	83.45	85.40	+1.75

Est. sales: 7,400 sales Wed. 6,048

Total open interest Wed. 44,423 off 142 from Tues.

N.Y. SILVER. 5,000 troy oz.; cents troy oz.

Jul	840.00	850.00	837.00	846.50	—7.50
Sep	851.00	864.50	851.50	861.10	—7.60
Dec	873.00	884.00	870.50	880.30	—7.60
Jan	876.00	882.00	876.00	885.90	—7.70
Mar	890.00	897.50	888.50	897.50	—7.70
May	902.50	910.50	902.50	909.10	—7.70
Jul	910.40	920.00	910.40	920.70	—7.70
Sep	925.00	925.00	925.00	932.30	—7.70
Dec	946.80	950.00	942.00	950.40	—7.60
Jan	953.00	953.50	948.00	958.20	—7.60

Est. sales: 20,000 sales Wed. 19,563

Total open interest Wed. 163,917 off 452 from Tues.

PLATINUM 50 troy oz.; dollars per troy oz.

Jul	410.60	418.00	410.60	417.60	—3.00
Oct	410.80	417.80	410.80	417.80	—3.00
Jan	412.60	420.00	412.60	419.40	—3.00
Apr	419.50	419.50	414.00	422.00	—3.00
Jul	418.50	424.00	417.70	424.50	—3.00
Jan	422.90	422.90	422.90	429.50	—3.40

Est. sales: 2,541 sales Wed. 3,217

Total open interest Wed. 9,098 up 172 from Tues.

GOLD 100 troy ounce contracts

Jun	275.50	278.30	275.00	277.50	—2.50
Jul	276.00	279.40	276.00	279.40	—2.50
Aug	278.60	281.90	278.00	281.60	—2.70
Oct	284.00	286.40	283.00	286.30	—2.80
Dec	287.50	291.20	287.50	291.50	—2.90
Feb	293.40	295.80	292.00	295.60	—3.00
Apr	296.80	300.30	296.80	300.20	—3.10
Jun	302.20	304.50	302.00	304.80	—3.20
Aug	307.50	308.20	307.50	309.40	—3.30
Oct	314.00	314.00	314.00	314.00	—3.40
Dec	316.20	318.80	316.20	318.70	—3.40
Feb	321.50	321.80	321.50	323.40	—3.40
Apr	326.00	326.00	326.00	328.10	.

Est. sales: 25,598 sales Wed. 29,007

Total open interest Wed. 164,344 up 3,402 from Tues.

CHICAGO FUTURES
June 7, 1979

	Open	High	Low	Close	Chg.
WHEAT 5,000 bu.; dollars per bu.					
Jul	3.86	3.91	3.80½	3.84½	—.01¼
Sep	3.90½	3.94½	3.85½	3.88¾	—.01½
Dec	4.03	4.05	3.96½	3.98½	—.03¾
Mar	4.10¾	4.12½	4.04¾	4.07	—.02
May	4.18½	4.13½	4.04¾	4.06½	—.02½
Jul	4.02	4.03¾	3.99	3.99	—.04

Sales Wed. 18,571.

Total open interest Wed. 38,689, up 710 from Tues.

CORN 5,000 bu.; dollars per bu.

Jul	2.69¼	2.72¼	2.68½	2.69¾	—.00¼
Sep	2.74	2.77	2.73¼	2.75	+.00½
Dec	2.78¼	2.81	2.76½	2.79	+.01
Mar	2.86¼	2.89¼	2.85¼	2.87¼	+.01
May	2.91½	2.94	2.91	2.92½	+.00¾
Jul	2.94½	2.96¼	2.94¼	2.94½	.

Sales Wed. 46,159.

Total open interest Wed. 174,216, up 2,648 from Tues.

SOYBEANS 5,000 bu.; dollars per bu.

Jul	7.43	7.58	7.43	7.50	+.01½
Aug	7.53	7.62½	7.50½	7.55½	+.01¾
Sep	7.47½	7.59½	7.44½	7.53	+.04½
Nov	7.35	7.52½	7.33½	7.45¼	+.08¾
Jan	7.47	7.63	7.44½	7.55	+.08½
Mar	7.58	7.75	7.57	7.67½	+.09
May	7.66½	7.82½	7.64	7.75½	+.09
Jul	7.76	7.88	7.75½	7.80½	+.09

Sales Wed. 49,654.

Total open interest Wed. 119,529, up 2,624 from Tues.

	Open	High	Low	Close	Chg.
SOYBEAN MEAL 100 tons; dollars per ton					
Jul	208.00	203.90	199.30	201.40	+1.30
Aug	201.50	204.90	201.20	203.10	+1.30
Sep	202.80	205.00	202.00	203.50	+1.20
Oct	201.50	205.20	201.00	203.50	+1.80
Dec	202.50	206.90	202.50	205.20	+2.30
Jan	204.00	208.00	203.70	206.80	+2.30
Mar	207.30	210.50	206.50	209.00	+2.10
May	208.50	212.00	208.50	210.70	+2.20
Jul	209.50	212.00	209.00	210.30	+1.40

Sales Wed. 15,029.

Total open interest Wed. 51,229, up 689 from Tues.

SOYBEAN OIL 60,000 lbs.; dollars per lbs

Jul	26.00	26.10	25.87	25.96	—.01
Aug	26.15	26.32	26.00	26.08	+.01
Sep	26.20	26.45	26.13	26.10	+.05
Oct	26.15	26.50	26.05	26.15	+.08
Dec	26.05	26.48	26.00	26.17	+.14
Jan	26.05	26.45	26.02	26.20	+.15
Mar	26.10	26.60	26.05	26.23	+.11
May	26.15	26.65	26.15	26.27	+.09
Jul	26.40	26.60	26.25	26.27	+.07
Aug	26.25	26.25	26.25	26.25	+.05

Sales Wed. 11,465.

Total open interest Wed. 57,469, up 200 from Tues.

OATS 5,000 bu; dollars per bu.

Jul	1.53½	1.57	1.53¼	1.53¾	+.00¾
Sep	1.61¼	1.65½	1.61	1.62½	+.02
Dec	1.68¼	1.73	1.68¼	1.71	+.03¼
Mar	1.74	1.73¾	1.74	1.76¾	+.02¾
Jul	.	.	.	1.78	+.03

Sales Wed. 700.

Total open interest Wed. 5,241, up 11 from Tues.

LIVE BEEF CATTLE 40,000 lbs.; cents per lb.

Jun	70.10	70.40	70.00	70.55	+.72
Aug	64.50	67.87	64.47	67.82	+1.42
Oct	64.90	66.30	64.90	66.15	+1.33
Dec	65.95	67.50	65.90	67.07	+1.30
Jan	66.55	67.77	66.55	67.70	+1.20
Feb	67.25	68.50	67.15	68.50	+1.25
Apr	68.00	69.00	67.82	69.00	+1.10
Jun	69.20	70.20	69.20	70.20	+.95
Aug	68.65	69.60	68.60	69.60	+.80
Oct	68.50	68.60	68.50	68.60	+.80

Est. sales: 32,445; sales Wed. 40,914.

Total open interest Wed. 66,736, up 239 from Tues.

FEEDER CATTLE 42,000 lbs.; cents per lb.

Aug	77.75	79.00	77.70	78.80	+.78
Sep	77.60	78.75	77.50	78.62	+.80
Oct	77.70	77.90	76.90	77.70	+.58
Nov	77.85	78.65	77.40	78.45	+.20
Jan	79.50	80.55	79.50	80.40	+.83
Mar	80.50	81.25	80.50	81.12	+.87
Apr	80.50	81.25	80.50	81.10	+.85
Sep	81.00	81.45	81.50	81.30	+.40

Est. sales: 4,058; sales Wed. 5,080.

Total open interest Wed. 19,190, up 263 from Tues.

LIVE HOGS 30,000 cents per lb.

Jun	40.75	42.00	40.70	41.95	+1.25
Jul	41.00	41.90	40.90	41.40	+.35
Aug	38.00	38.80	37.90	38.57	+.37
Oct	35.40	36.00	35.15	35.92	+.37
Dec	36.55	37.00	36.35	37.15	+1.05
Feb	37.50	38.47	37.50	37.67	+.70
Apr	36.70	37.60	36.40	36.72	+.62
Jun	39.30	40.20	39.40	39.00	+.75
Jul	39.00	40.50	39.50	40.50	+1.50

Est. sales: 6,224; sales Wed. 6,351.

Total open interest Wed. 26,366 off 292 from Tues.

PORK BELLIES 38,000 lbs.; cents per lb.

Jul	41.37	42.97	41.20	42.42	+1.05
Aug	39.25	41.05	39.25	40.72	+1.32
Feb	44.15	45.87	44.15	45.87	+2.00
Mar	43.95	45.75	43.95	45.75	+2.00
May	46.45	46.45	46.15	46.30	+1.85
Jul	45.50	47.50	45.50	47.50	+2.00
Aug	45.20	46.25	45.00	46.05	+1.80

Est. sales: 6,445; sales Wed. 5,911.

Total open interest Wed. 16,419, up 805 from Tues.

ICED BROILERS 30,000 lbs.; cents per lb.

Jun	47.00	47.45	47.00	47.17	+.38
Jul	45.60	45.60	44.95	45.15	—.75
Aug	45.10	45.40	45.10	45.35	+.15
Sep	43.85	43.85	43.50	43.50	—.35
Oct	.	.	.	43.25	—.25
Nov	41.80	41.85	41.40	41.55	—.25
Dec	42.75	42.75	42.50	42.50	—.30
Jan	44.00	44.00	44.00	44.00	—.75

Sales Wed. 149.

Total open interest Wed. 1,692, up 3 from Tues.

SHELL EGGS 22,500 doz.; cents per doz.

Jun	57.40	57.45	57.00	57.30	+1.00
Jul	57.95	58.20	57.90	57.90	+.50
Aug	.	.	.	57.50	.
Sep	59.80	60.45	59.80	60.45	+.70
Oct	.	.	.	57.73	.
Nov	.	.	.	61.10	.
Dec	63.45	63.50	63.35	63.45	+.95

Est. sales: 77; sales Wed. 94.

Total open interest Wed. 562, off 9 from Tues.

LUMBER 100,000 bd. ft.

Jul	229.00	230.00	227.90	227.90	—5.00
Sep	213.50	215.50	212.20	212.40	—3.60
Nov	203.20	203.70	202.30	202.50	—.90
Jan	203.80	204.00	203.40	203.40	—1.00
Mar	207.50	207.50	206.50	206.50	—1.50
May	208.50	208.50	208.50	208.50	—1.00

Est. sales: 2,713; sales Wed. 2,000.

Total open interest Wed. 8,478, up 342 from Tues.

PLYWOOD 76,032 sq ft; dollars per 1,000 sq ft.

Jul	191.80	191.50	190.10	191.20	—.60
Sep	193.20	193.50	192.10	193.20	—.30
Nov	192.30	192.50	191.50	192.40	—.40
Jan	194.00	194.50	193.20	194.00	—.70
Mar	196.50	197.00	196.00	196.80	—.20
May	198.00	199.30	198.00	199.00	—.30
Jul	201.40	201.60	201.40	201.40	.
Sep	.	.	.	203.60	.
Nov	201.50	201.50	201.50	201.50	.

Sales: Wed. 954.

Total open interest Wed. 4,208, up 165 from Tues.

Tokyo Exchange

June 7, 1979

	Price Yen		Price Yen
Asahi Glass	340	Matsu E. Wks	525
Canon	535	Mitsubi Hvy Ind.	147
Dai Nip. Print	550	Mitsubi Corp.	448
Fuji Bank	337	Mitsui Co.	211
Fuji Photo	684	Nitsukoshi	471
Hitachi	247	Nippon Elec.	320
Honda Motor	539	Shara	448
C. Itoh	382	Sony Corp	2,070
Japan Air L.	2,860	Sumitomo Bank	337
Kansai El. Pwr.	1,010	Taisho Marine	242
Kao Soap	546	Takeda	454
Kirin Brewery	427	Tellik	140
Komatsu	336	Tokyo Marine	518
Kubota	284	Toray	162
Matsu El. Ind.	687	Toyota	899

AMEX Nationwide Trading Closing Prices June 7

Tables include the nationwide prices up to the closing on Wall Street.

13 Month High	Low	Stock	Div.	Sls. in 5 Yld.	P/E	100s.	High	Low	Close	Ch'ge Prev Quot.	Close
		— A—A—A —									
13⅝	9⅛	AAR	.28	3.7 6	26	10⅞	10¼	10¼	— ¼		
6⅝	3½	AAV	.39e	7.3 6	0	4	4	4	.		
12	6½	APS	.44	5.3 6	0	8⅛	8⅛	8⅛	— ⅛		
2¾	1	ATI			13	1½	1⅛	1⅛	.		
17¾	7	AVC		5	15	11¾	11½	11½	.		
54⅞	17	AVX	.50	1.5 11	55	34½	33¾	34⅛	— ⅛		
7⅝	3¾	AZL		12	16	5	4⅝	4⅝	— ¼		
18⅝	6½	AbrdMf	.40b	4.2 6	10	9½	9¼	9½	+ ¼		
17¼	7¾	AcmeU	.30	2.6 13	14	11⅝	11⅝	11⅝	+ ⅛		
5	2⅝	Action			11	2⅝	2⅝	2⅝	.		
14⅝	7¼	ActonCo	.20	2.6 7	234	12⅝	11½	11½	—1⅛		
15½	7½	AdamR	.12	.9 11	45	13⅝	13¼	13½	— ¾		
28¾	13¼	AdobeO	.20	.7 26	157	27¾	27⅛	27⅝	+ ⅜		
2⅞	1¾	AegisCp			6	5	1¾	1¾	.		
20⅝	9½	AeroFlo	.30c	1.8 4	4	17	16¾	16¾	.		
7⅝	2	Aeronca			17	4⅝	4⅝	4⅝	— ½		
7¼	5⅛	AffiCop	.10e	1.5 25	5	6½	6½	6½	+ ⅛		
24⅝	16¼	AffilPub	.50	3.6 8	11	22⅝	22⅛	22⅛	.		
9½	5⅛	AfterSix	.32	6.0 5	3	5⅛	5⅛	5⅛	— ⅛		
8	4⅝	AlskAir	.20r	4.3 3	31	4¾	4⅝	4⅝	.		
5⅝	2⅝	AlbcW	.15e	4.0 2	12	3¾	3¾	3¾	— ¼		
9⅝	5	Alcolac	.10	2.8 8	14	9	8⅝	8⅝	.		
23	13⅝	AllegCp	wt		1	21½	21½	21½	.		
8⅛	2⅝	AllegA	wtO		99	5⅝	4⅝	5⅛	+1⅛		
47½	27½	AllgA	pf	3	8.6	3	35	34½	35	+ ½	
11⅞	5⅝	AlmrSt	.20e	2.5 8	102	0	7⅛	7⅛	+ ⅛		
10⅝	3⅞	AlphaIn	.10e	1.0 13	58	10	9¾	9⅝	+ ⅛		
13	8¼	AltamII	.32e	2.7 4	2	11⅝	11⅝	11⅝	+ ¼		
2	13-16	AltecCp			15	609	15-16	13-16	⅞—1-16		
8⅝	6⅛	Altec	pf		3	7⅝	7⅝	7⅝	+ ⅛		
20⅝	12	AlterFd	.50	3.1 6	34	16⅝	16¼	16¼	— ¾		
48¾	41	Alcoa	pf3.75	8.9	2100	42	41¾	42	.		
71⅛	31⅝	AmdhI	.40	1.1 12	299	39⅝	37½	37½	—1		
10½	6⅝	AmBild	.12e	1.4 5	7	8⅝	8¾	8¾	.		
11	7½	ABusPd	.40	4.2 7	8	9½	9⅛	9⅛	.		
11⅝	5¼	ACanIrl	.56	5.1 6	1	10⅝	10⅝	10⅝	.		
11¾	7	ACarPd	.34	3.4 9	19	10⅝	10	10⅝	.		
13⅝	6⅛	AlstPlcl			281	9⅝	9	9⅝	+ ⅛		
4⅝	2¼	Alsrsil	.09e	2.3 3	6	3⅝	3¾	3⅝	+ ⅛		
11¾	6¼	AMzbA	.48	4.2 8	42	11½	11¼	11¾	.		
11¾	6½	AMzbB	.48	4.3 7	56	11¼	11	11¼	+ ¾		
46⅛	30¾	AmAlfa	1.90i	5.0 6	13	38¼	38	38¼	+ ⅛		
12⅝	9⅝	AMdBld	s		16	39	10⅝	10⅝	.		
24¼	8¼	AMcHn	.30	2.1 6	79	14½	14	14⅝	.		
34	22⅝	AmPerl	2.20	6.5 8	24	34⅝	33⅝	33⅝	— ¾		
11½	5⅛	ASciE	.04e	.4	44	7	6½	6⅝	— ¾		
17	12⅛	AmSeat	.40	3.0 12	16	13⅝	13⅝	13¼	+ ¾		
15¼	0	AmTec	.50c	5.5 4	36	9⅛

AMEX Nationwide Trading Closing Prices June 7

Tables include the nationwide prices up to the closing on Wall Street.

(Continued From Page 20)

12 Month High	12 Month Low	Stock Div. In $	Yld.	P/E	Sls. 100s	High	Low	Close	Ch'ge Prev Quot.
9⅝	5⅛	SelgnCo .50	3.6	4	2	13⅞	13⅞	13⅞+ ⅛	
4	3	ShoerS .40e	5.2	6	4	7¾	7¾	7¾— ⅛	
12⅝	10⅝	Shorin 1e	2.7	6	38	37	36¼	37 — ½	
5⅛	3⅝	Showin .50	9.3	6	15	5½	5⅜	5⅜+ ⅛	
2⅛	1	SheltrR		5	10	3¼	3¼	3¼+ ⅛	
3⅛	1⅝	Shoewell		10	18	5⅝	5½	5⅝— ⅛	
19	10	Showbs 1	4.4	8	11	23	22⅝	22⅝— ⅛	
12⅝	10⅝	Sierrcin .30	1.2	12	18	25⅝	25	25	
7⅛	5	Silico s .28	3.3	7	12	5⅝	5⅝	5½+ ⅛	
10	6	Sigma .40	2.4	7	26	17⅝	16⅝	16⅝— ⅝	
7⅝	5	Sikes A .35e	4.1	5	5	9⅝	8⅝	8⅝	
10⅝	6	Siloinc .30	2.1	4	12	14¼	14¼	14¼— ⅝	
3⅝	1	Silvrcst		8	22	5⅛	4⅝	5⅛	
5⅝	3⅝	SimcoS .25b	6.1	9	11	4⅛	4⅛	4⅛— ⅝	
2⅛	1	Solitron		16	977	6⅝	5⅝	5⅝— ¾	
19⅝	10	SonderB .40	1.6	8	1	25⅝	25⅝	25⅝	
5½	3	SorgPop .21e	1.7	4	16	12⅛	11¾	12⅛+ ⅝	
6⅝	3	Soundsn .40	4.9	4	24	8⅛	8	8⅛+ ⅝	
10⅝	6	SCEd pfI.06	9.9		15	11½	10⅝	10⅝— ⅜	
10⅝	6	SCEd pfI.08	9.9		15	11	10⅝	10⅝+ ⅛	
11⅝	6	SCEd pfI.19	9.9		1	12	12	12 — ⅛	
24⅝	16	SCEd pfI.48	9.7		2100	25½	25½	25½— ¼	
12	7	SCEd pfI.45	9.6		1	15⅛	15⅛	15⅛— ⅝	
14⅝	10	SCEd pfI.30	6.9		1	18⅝	18⅝	18⅝+ ⅛	
28⅝	15	SCEd pfI.30	9.6		1	24	24	24	
26½	21¾	SCEd pfI.21	9.5		3	23¼	23¼	23¼	
90	77½	SCEd pfI.58	9.0		160	84¼	83	84¼+2¼	
106⅝	91	SCEd pfI.96	9.2		101	97⅝	95⅝	96 +2	
29⅝	24	SwFIB pf2.18	8.7		4	25	25	25 + ⅛	
15⅝	9	SpectrR		6	2	10⅛	10⅛	10⅛+ ⅛	
13½	6⅛	Spector .31e	2.6	4	136	12⅝	12⅛	12⅛— ⅛	
6⅝	3½	Spectro		5	27	3⅝	3⅝	3⅝+ ⅛	
7⅝	3½	SpeedOP .14r	2.7	9	4	5⅝	5¼	5¼— ⅛	
6⅝	2	Spencer .16	3.7	5	15	4⅛	4⅛	4⅛— ⅛	
27⅝	13⅝	SkffrdL		13	19	22⅝	21⅝	22⅝— ⅝	
26½	19⅝	StdAlle 1	4.1	6	1	24¼	24¼	24¼— ¼	
13⅝	6⅝	StdCool .40b	3.0	8	3	13⅝	13⅝	13⅝	
28⅛	20½	StCoos 1.60	6.7	7	2	23⅝	23⅝	23⅝— ⅛	
12⅝	6	StdMetl		71	170	11⅝	11¼	11⅝+ ⅛	
31⅝	20½	StdStr .60t	2.4	8	12	24⅝	24¼	24⅝+ ⅝	
13⅝	4⅝	Storage .20	2.6	9	10	7⅝	7½	7⅝— ⅛	
13⅝	9	StorAv .37e	3.0	6	5	12¼	12¼	12¼— ⅛	
7⅝	3¼	Storwd		3	144	4¼	4	4 — ⅛	
3⅛	1¼	Stordust		1	29	1⅝	1⅝	1⅝— ⅛	
11½	7⅝	StorrHo .30	3.5	4	4	8⅝	8⅝	8½-	
8⅝	4	Steinl .24b	3.4	17	2	7⅝	7	7⅛+ ⅛	
25⅝	16	StearCh .88	4.6	7	3	17½	17¼	17¼+ ¼	
2⅝	15-16	StarIEl		6	15	1⅛	1⅛	1⅛	
14¼	6⅛	StruW .20b	2.1	23	85	u14⅝	13⅝	14⅝+ ⅝	
5	2⅝	SuaAnn .24e	7.7	7	3	3⅛	3⅛	3⅛	
2⅛	1	Summit			5	1⅝	1⅝	1⅝— ⅛	
5½	3⅝	SunCity1 .25	5.1	20	2	4⅝	4⅝	4⅝— ⅛	
17⅝	7	Sunair .68	5.0	8	4	12	12	12 + ⅛	
31⅝	12½	Sundnc .16b	.6	14	153	27⅝	26½	26½— ⅝	
19⅝	8½	Suntrd .25	1.8	6	43	14⅛	13⅝	13⅝— ¼	
11⅝	6	SupSurg .32	3.7	6	21	8⅝	8½	8¾+ ¼	
48¼	20½	Supran .30	.8	25	248	40⅛	38⅝	39½— ⅛	
10½	4⅝	Susquehn		4	57	5⅛	5	5	
13⅝	9½	Susqh pf 1	10.		5	9⅝	9⅝	9⅝+ ¼	
1⅝	⅝	SutrMts wt			44	⅝	13-16	⅝—1-16	
7⅝	3½	Synlov .30b	5.3	17	10	5⅝	5½	5⅝+ ¼	
38⅝	24½	Syntex 1.10	3.1	16	1128	36¼	35⅝	36 + ⅛	
35½	21¾	SyscoCp .36	1.7	8	11	23⅝	22⅝	22⅝— ⅝	
25⅝	18⅝	SystEng		11	77	13⅝	12⅝	12⅝	
8⅝	3⅝	SysPln .20	4.8	4	13	4⅛	4	4⅛	
13¼	4½	TEC .40	6.8	10	9	6⅝	6⅝	6⅝— ⅛	
5⅝	1½	TFI		9	11	2½	2½	2½	
16⅝	8⅝	TabPd .20	1.3	9	5	15½	15½	15½— ⅛	
14¼	8	TandB 1e	11.	5	2	8⅝	8⅝	8⅝— ⅛	
14½	7¼	Tannet .28	3.7	4	15	7⅝	7⅝	7⅝— ⅛	
14⅝	11⅛	Tasty 1.28b	9.9	606	1	12⅛	12⅛	12⅛+ ⅛	
2⅝	1¼	TechSym		9	27	2⅛	2	2	
9⅛	4	TechOp		8	71	u 9¼	8½	9⅛+ ½	
4⅝	2⅛	TechTr .07r	3.1	11	75	2⅛	2⅛	2⅛	
7½	3⅝	Tectrol .24	4.7	5	4	5½	5⅛	5½— ¼	
53⅝	18½	TejonR		63	39	41½	39⅝	41¼+2	
14⅝	7⅝	TelsCm .60	5.3	3	20	11⅝	11¼	11¼— ⅛	
27½	15¼	TelRex .48	1.8	11	25	21⅝	21⅝	21⅝+ ⅝	
22¼	12	Telscl .60	3.1	14	36	20⅝	19⅝	19⅝— ⅝	
6	2⅛	Tenna		6	2⅛	2⅛	2⅛	2⅛	
4⅝	1⅛	Tensor		17	4	3⅝	3⅝	3⅝	
10⅝	4⅝	TerroC .10i			76	7	6⅝	6⅝— ⅛	
15½	7¼	TetraT		16	130	12⅝	10½	10½—1⅝	
16⅝	7⅝	TexAir .16	1.5	11	465	11½	10⅛	10½— ½	
1⅝	½	TherCp			20	¾	¾	¾	
21½	14½	Thrift 1	5.0	4	13	20⅛	20⅛	20⅛	
7	3	Tidwell		3	10	3⅝	3⅝	3⅝+ ⅝	
46¼	38½	TelEd pf4.25	11.		x200	38⅝	u38⅝	38⅝—1	
107½	90	TelEdpf 10	11.		x10	93	93	93 —1⅝	
14¼	6⅝	ToppsG .28	4.0	6	9	7	7	7 — ⅛	
17⅝	10⅝	TorpCp .50	5.7	6	5	14	14	14	
25	9⅛	TotPet pf 2.32			614	24⅝	22⅝	24⅝+ ⅝	
16⅝	3⅝	TotPet wt			255	u16⅛	16⅛	16⅛+ ⅛	
6⅝	2	TownCtry		11	41	2⅝	2⅝	2⅝+ ⅛	
7⅛	4⅛	TrnsLux .85e	.9	7	8	5⅛	5⅛	5⅛— ⅛	
12	7⅝	TransOil .65e	.5	17	174	10⅛	9⅝	10⅛+ ⅝	
9⅝	4⅝	Tradwy .20	3.6	10	32	5½	5¼	5½	
9⅝	7	TriSM .60	7.7	4	17	8	7⅝	7⅝	
18⅝	9⅝	TrloCp .20	1.8	6	10	11⅛	11	11⅛— ⅛	
46⅝	4½	TubeM		15	255	28⅞	27⅛	27⅛—1⅝	
35⅝	23⅝	TurnrC 2	7.1	8	4	28⅛	28⅛	28⅛— ⅝	
4½	2⅛	TwinFr .20	4.1	6	39	5⅛	4⅞	4⅞— ½	
12½	7⅛	U&I			49	9⅝	9⅝	9⅝	
4½	2⅝	UIP .24	6.6	5	12	3⅝	3⅝	3⅝	
5½	2	UNA .25	4.4	4	17	4⅛	4⅛	4½	
7⅝	4⅝	URS .40b	7.3	6	15	5½	5½	5½	
16⅝	6⅝	Unimax		4	11	6⅝	6½	6½+ ⅝	
14¼	11	UnCasF .66	5.4	6	1	12⅛	12⅛	12⅛	
3⅛	1⅝	UnFoods		12	201	1½	1½	1½	
5⅛	2⅛	UNatCo		21	18	5	4⅞	5 + ⅛	
17⅝	9⅝	USFilt .32	2.6	7	43	12⅛	12⅛	12⅛	
11	7¾	UnRlT .81e	7.3	14	125	u11⅛	10⅝	11⅛+ ⅛	
⅛	1-16	UnRlT wt			3	1-16	1-16	1-16—1-16	
14⅝	13	USRbR 1o	6.2	7	x27	16⅛	15¾	16⅛+ ⅛	
12⅛	6½	UnivB		13	1	8⅛	8⅛	8⅛+ ⅛	
6	3⅝	UnivClp .05	.9	4	1	5⅝	5⅝	5⅝+ ⅛	
16⅛	10⅛	UnivRs .32	2.1	12	32	15¼	15	15¼+ ⅛	
16¼	9	UnivRu .72	7.4	6	2	9⅝	9⅝	9⅝+ ⅝	
— V—V—V —									
14⅝	6¼	Valle's .81i	12.	8	26	6½	6¼	6½	
16¼	11⅛	Valmac .80	6.5	12	3	12⅝	12⅝	12⅝— ¼	
2⅛	2	Valuel .86e	2.4		8	2⅝	2½	2½	
4⅝	1⅝	Vertr		6	2	1⅞	1⅞	1⅞+ ⅛	
32⅝	14⅛	VermtA .32b	1.5	0	48	22	21⅝	21⅝+ ⅛	
10½	4⅛	VernItrn .16	1.4	7	158	7⅝	7⅛	7⅝— ⅛	
8½	1⅝	Vertipile		8	23	5⅝	5	5	
4	1½	Veselv		123	74	4	3½	4 + ⅝	
4½	1⅝	Viatech		6	1	2	2	2 — ⅛	
7⅝	2½	ViatopeE		3	12	4	3⅝	4	
8	5	Virco .16b	3.0	4	7	5⅝	5⅛	5⅝	
12⅝	4⅝	Vishay		7	15	9½	9⅛	9½— ⅛	
7	3⅝	VisualG .16	3.0	8	10	5½	5⅛	5⅝	
4	2⅛	VolMer .12e	3.2	5	7	3⅝	3⅝	3⅝	
18¼	10	Vosles .52	4.2	5	2	12⅝	12½	12½— ⅛	
6	2⅝	VulcCp .20	3.9	4	14	5⅛	5⅛	5⅛— ⅛	
— W—W—W —									
7½	2⅝	WTC .021	35	108	5⅝	5⅛	5⅛		
10	6⅛	WackhI .40b	5.8	4	7	6⅝	6⅝	6⅝+ ⅛	
3½	2	WadeEq			2	2⅝	2⅝	2⅝— ⅛	
24⅝	18⅛	Wainoco .12	.5	16	133	24⅛	23¼	23⅝— ¼	
26⅛	20⅝	Walco .80b	3.2	6	35	25	24⅝	25 + ⅛	
11⅝	5	WaltcS .12	2.2	13	21	5½	5½	5½— ⅛	
44	17¼	Wang .06	.2	19	55	37⅝	37½	37⅝+ ⅛	
38⅛	18½	Wang B .16	.5	18	221	35¼	34⅞	35⅛	
17⅝	9¼	WardsCo .20	1.7	4	11	12½	12	12 — ⅛	
23⅝	7⅝	WarnC pf.05	.5		49	9⅝	8⅝	9⅝+ ⅝	
3⅛	1⅝	WshHm			20	2	2⅛	2⅛	
26⅝	21⅝	WasPsl s.36	1.6	7	43	23⅛	23	23	
25⅝	20½	WR1T 2.12	8.4	14	8	25½	25⅝	25⅝+ ½	
7½	5	Watsco .30	4.9	8	2	6½	6½	6½— ⅛	
17½	6⅝	WeldTu .20b	2.0	7	12	15¼	15	15¼+ ¼	
5½	2⅝	Wellco .25	5.6	25	2	4½	4½	4½	
8⅝	6⅝	WescoFn .38	4.6	6	5	8¼	8¼	8¼+ ⅛	
42¼	19⅝	Wsburn pf1.40			112	41¼	40½	41¼+ ⅝	
19½	11½	WstFin .48	2.8	3	82	17⅛	17	17⅛+ ⅛	
14¼	12½	WPacRR n		3	358	u15½	14⅝	14⅝+ ⅝	
10⅝	3⅝	Whippny .20	1.8		178	u11¼	10	11 +1¼	
8⅝	4¼	WhitCbl .40	5.8	7	10	6⅞	6⅝	6⅞+ ⅛	
7⅝	3⅝	Whitehall		6	37	5⅝	5¼	5¼+ ¼	
8½	2	WichIta		34	251	7⅞	7⅝	7⅞+ ⅝	
16	8⅝	Wmhous .60	4.1	0	17	15	14⅝	14⅝— ¼	
4	1⅞	WlsnB .15i			3	1⅞	1⅞	1⅞	
16¼	10¼	Wincorp .40	2.9	17	2	13⅝	13⅝	13⅝— ⅛	
51	44½	WisP pf4.50	10		x20	45	45	45	
3⅝	2	WolfHB		11	18	2⅛	2⅛	2⅛	
14½	11	Wdstrm n .60	5.3	5	7	11⅝	11⅝	11⅝	
9⅛	4⅝	WkWepr .40	5.8	5	36	7⅛	6⅞	6⅞	
17⅛	10	Wrelhr .10e	.6	40	49	16¼	16	16¼+ ⅝	
1 7-16	⅝	WrlghtH p			23	1⅛	1 1-16	1 1-16—1-16	
27	17⅝	Wynnin .60	2.5	7	15	24⅛	23⅞	24	
16	11	WymBn .64	5.1	8	69	12½	11¾	12½+ ⅝	
— X—Y—Z —									
12⅝	2	Xonics			8	5	5	5	
17	11⅛	ZeroCp .44	2.9	7	15	15⅝	15¼	15⅝— ¼	
17½	7¼	Zimmer .36	4.6	2	7	7⅛	7⅛	7⅞	

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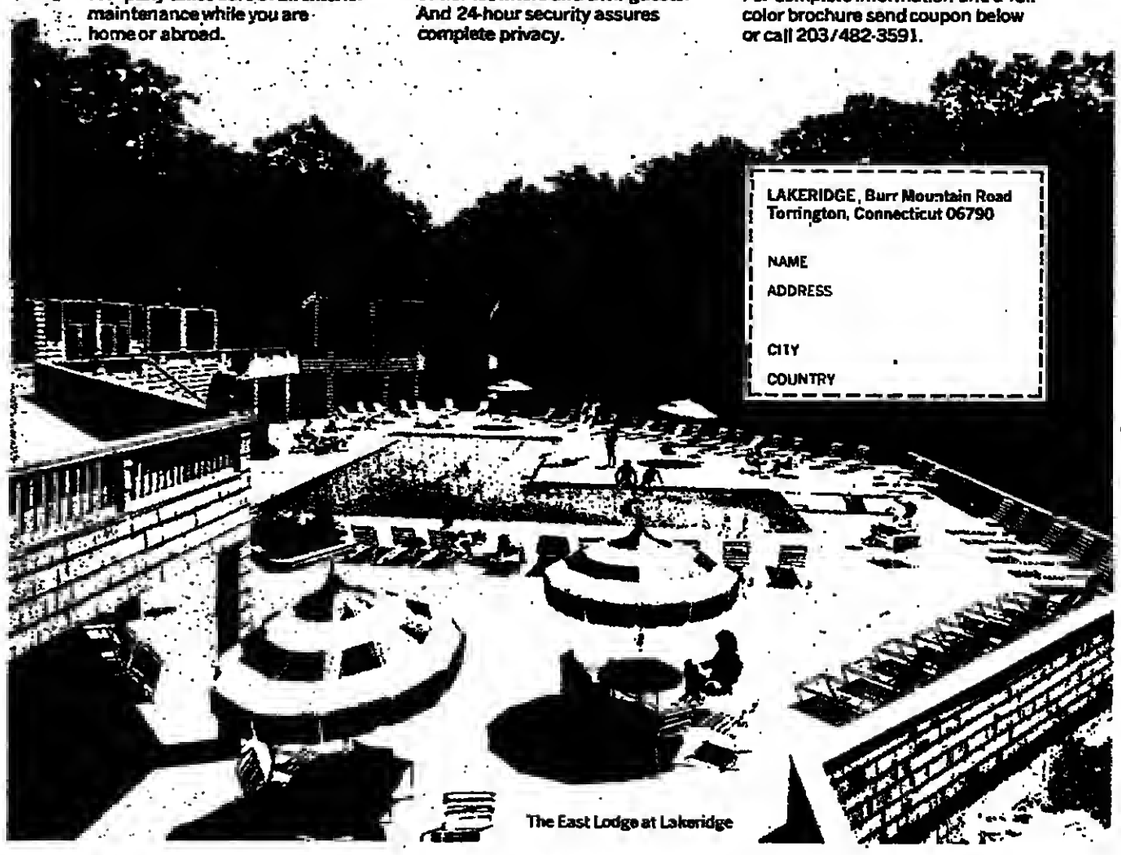

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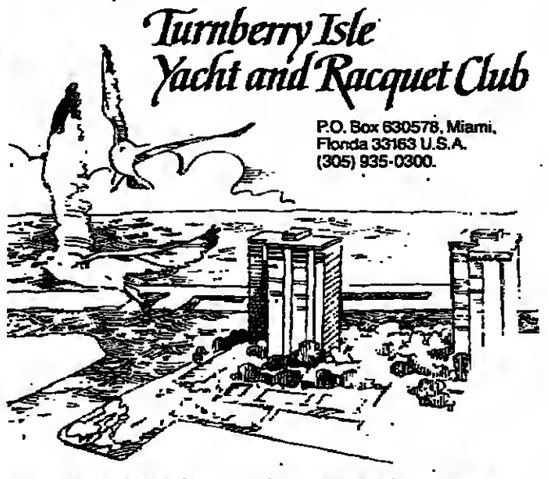

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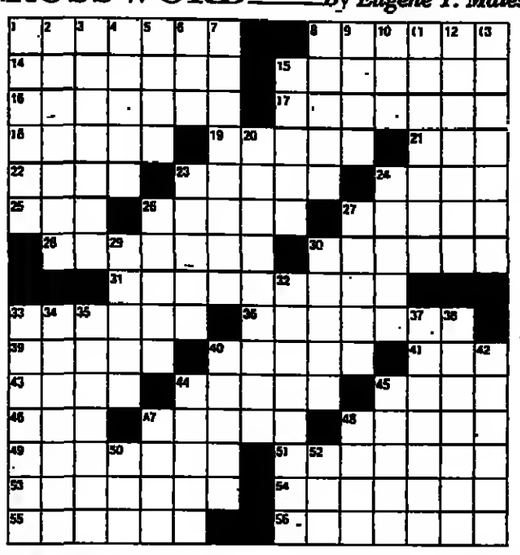
By Eugene T. Maleska



ACROSS

1 Expressionless
8 Pascal
14 Restriction
15 Blue water
16 Scale named for a French mathematician
17 Spellbinders
18 Borneo ape, fnr short
19 Disdain
21 Obstacle
22 Well kept
23 Track thriller
24 Hamlet
25 Shoe width
26 Sky blazer
27 Observant one
28 Awaited fearfully
30 Axmen
31 Ennobles
33 Ravenous
36 Fragments from fires
39 Strange
40 Social affair
41 Useful abbr.
43 St. Teresa's group
44 Author of "America the Beautiful"
45 Ship pole
46 Music to a matador's ears
47 Shaggy
48 Fat young herring
49 "Get lost!"
51 Iridescent
53 Irving Stone's "Love Is ——"
54 Stroked soothingly
55 Kind of library
56 Those with endurance

DOWN

1 Set apart solemnly
2 Rubbed with a mineral substance
3 Tool for scraping
4 Ozark nr Thomas
5 Prissy person
6 Application information
7 Vinland voyagers
8 Coffee bean, e.g.
9 Angular
10 Like le mot juste
11 Deny contact
12 More collected
13 Spring times
15 Uncertainty
20 Assert
23 Evasive
24 Divine
26 Stone-heap marker
27 Deserving of welfare
29 Borders
30 Slight helps
32 Andirons
33 Victoria's house
34 Lament loudly
35 Diamond or court group
37 Trouble in Paradise
38 He dyes for a living
40 Wall decoration
42 Codes nf belief
44 Fundamental
45 Smacking of the sea
47 Wnman who barely smiled
48 "Give a —— horse . . ."
50 Noted women's service org.
52 Display of temper

WEATHER

	C	F			C	F	
ALGARVE	24	75	Fair	MADRID	27	81	Cloudy
AMSTERDAM	16	61	Cloudy	MIAMI	30	86	Cloudy
ANKARA	N.A.			MILAN	23	73	Mist
ATHENS	25	77	Fair	MONTREAL	19	66	Fair
REINUT	25	77	Fair	MOSCOW	17	63	Overcast
BELGRADE	30	86	Fair	MUNICH	16	61	Mist
BERLIN	17	63	Rain	NEW YORK	23	73	Fair
BRUSSELS	13	55	Showers	NICE	24	75	Fair
BUCHARREST	27	81	Cloudy	OSLO	25	77	Fair
BUDAPEST	31	88	Fair	PARIS	16	61	Cloudy
CASABLANCA	23	73	Fair	PRAGUE	18	64	Overcast
COPENHAGEN	19	66	Overcast	ROME	29	68	Mist
COSTA DEL SOL	24	75	Cloudy	SOFIA	26	79	Fair
DUBLIN	15	59	Overcast	STOCKHOLM	29	84	Fair
EDINBURGH	12	54	Overcast	TEHRAN	31	88	Fair
FLORENCE	26	79	Cloudy	TEL AVIV	27	81	Fair
FRANKFURT	21	70	Overcast	TOKYO	23	73	Rain
GENEVA	19	66	Fair	TUNIS	25	77	Cloudy
HELSINKI	26	79	Fair	VIENNA	28	82	Fair
ISTANBUL	23	72	Fair	WARSAW	28	82	Fair
LAS PALMAS	23	73	Fair	WASHINGTON	26	79	Fair
LISBON	26	79	Cloudy	ZURICH	17	63	Cloudy
LONDON	14	57	Showers				
LOS ANGELES	19	66	Cloudy				

(Yesterday's readings U.S. and Canada at 1700 GMT; Los Angeles at 2000 GMT; all others at 1200 GMT.)

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ADVERTISEMENT

June 7, 1979

The net asset value quotations shown below are supplied by the Funds listed with the exception of some Swiss funds whose quotes are based on issue prices. The following marginal symbols indicate frequency of quotations supplied for the NH: (d)—daily; (w)—weekly; (m)—monthly; (r)—regularly; (i)—irregularly.

BANK JULIUS BAER & Co Ltd:	
—(d) Bearbond	SF 727.25
—(d) Conbar	SF 678.00
—(d) Grabar	SF 592.00
—(d) Stockbar	SF 704.00
BANDUR VON ERRST & CIE.:	
—(d) CSF Fund	SF 14.98
—(d) Crossbow Fund	SF 3.91
—(d) ITF Fund N.V.	$ 9.04
BRITANNIA TRUST MNGT.(CI) Ltd.:	
—(w) Universal Dollar Trust	$ 5.82
—(w) High Interest Sterling	£0.95
CAPITAL INTERNATIONAL:	
—(w) Capital Int'l Fund	$ 15.84
—(w) Capital Italia S.A.	$ 10.75
—(w) Convertible Capital S.A.	$ 27.47
CREDIT SUISSE:	
—(d) Actions Suisses	SF 291.00
—(d) Canasec	SF 448.00
—(d) C.S. Fonds-Bonds	SF 62.50
—(d) C.S. Fonds-Int'l	SF 39.75
—(d) Energie-Valor	SF 51.00
—(d) Usec	SF 448.00
—(d) Europa-Valor	SF 108.75
DIT INVESTMENT FRANKFURT:	
—(d) Concentra	DM 18.50
—(d) Int'l Rentenfond	DM 45.70
BARNRX Fd. Box N 1965, Nassau, Bahamas:	
—(d) Barnrx Fd	$ 5.45
FIDELITY PO Box 670, Hamilton, Bermuda:	
—(w) Fidelity Amer. Assets	$ 24.00
—(d) Fidelity Dir. Svgs. Tr.	$43.43
—(w) Fidelity Int'l Fund	$ 22.72
—(w) Fidelity Pacific Fund	$ 49.29
—(w) Fidelity World Fd.	$ 14.66
FIDELITY POB 195, St Helier, Jersey C.I.:	
—(w) Fidelity Sterling A	£ 3.61
—(w) Fidelity Sterling B	£ 7.73
—(w) Fidelity Sterling D	£ 16.56
G.T. MANAGEMENT LTD:	
—(w) Barry Pac. Fd. Ltd.	$ 45.48
—(w) G.T. Asia Fund	HK$ 10.07
—(d) D.T. Bond Fund	$ 13.98
—(w) G.T. Dollar Fund	$ 7.32
JARDINE FLEMING:	
—(r) Jardine Japan Fund	$23.11
—(r) Jardine S.East Asia	$ 17.42
LLOYDS BANK INT., POB 430 GENEVA 11	
—(w) Lloyds Int'l Growth	SF 366.00
—(w) Lloyds Int'l Income	SF 386.80
ROTSCHILD ASSET MGMT (Bermuda):	
—(w) Reserve Assets Fd Ltd	$9.95
SOFID GROUP of GENEVA	
—(r) Parien Syr. R Esf	SF 1,338.00
—(r) Securvalor	SF 1,020.00
SWISS BANK CORP:	
—(d) America-Valor	SF 225.50
—(d) Intervalor	SF 38.00
—(d) Japan Portfolio	SF 377.00
—(d) Swissvalor New Ser	SF 240.50
—(d) Univ. Bond Select	SF 68.00
—(d) Universal Fund	SF 73.06
UNION BANK OF SWITZERLAND:	
—(d) Amca U.S. Sh	SF 21.25
—(d) Bond Invest	SF 60.00
—(d) Convert-Invest	SF 63.50
—(d) Eurit Europe Sh	SF 122.00
—(d) Fonsa Swiss Sh	SF 182.00
—(d) Globinvest	SF 34.50

Other Funds

(w) Alexander Fund	$7.44
(r) Arab Finance I.F.	$ 1,030.00
(w) Trusicor Int. Fd (AEIF)	$7.38
(w) Austral. Select Fd.	$1.48
(w) Bendzelex - Issue Pr.	BF 125.55
(w) CAMIT	$ 10.69
(w) Capital Gains Inv.	$ 13.32
(d) Capital Rentinvest	LF 1,414.00
(d) Caribbea Open-End Fund	$ 208.67
(w) Citadel Fund	$ 9.97
(w) Cleveland Offshore Fd.	$ 1,013.47
(w) Convert. Fd Int. A Certs.	$ 7.88
(w) Convert Fd Int. D Certs	$14.88
(d) Convertible Japan	$ 8.70
(w) D.G.C.	$ 42.79*
(d) Dollar Fund (ex-divid.)	$ 8.16
(d) Dreyfus Fund (gr)	$ 14.73
(w) Dreyfus Intercontinent	$18.41
(d) Eurcea Obligations	LF 1,152.00
(w) First Eagle Fund	$ 4,578.68
(w) First Intern'l Fund	$ 212.62
(w) Fonselex Issue Pr	SF 1,448.00
(w) Formula Selection Fd	SF 57.78
(d) Fondiitalia	$ 12.57
(d) Frankl.-Trust Interbras	DM 48.18
(d) Fund of N.Y. (ex-divid.)	$ 8.38
(d) Global Int'l Fund	DM 6.63
(w) Hausmann Hldgs. NV	$ 292.44
(i) H.O.I.T. Hebel	$ 29.41
(d) Indosuez Multifonds A	$109.13
(d) Indosuez Multifonds R	$ 111.78
(d) Interfund S.A.	$ 9.98
(w) Intermarket Fund	$ 161.22
(w) Int'l Inc Fund (Jersey)	$ 23.66
(r) Int'l Securities Fund	$ 6.71
(d) Invesla DWS	DM 34.00
(r) Invest Atlantiques	$ 30.70
(d) Italamerica S.A. Fund	$ 9.91
(r) Italfortune Int'l Fd S.A.	$8.57
(w) Japan Selection Fund	$59.24
(w) Japan Pacific Fund	$ 40.42
(d) K.B. Income Fund	LF 1,545.00
(d) Kleinwort Benson Int. F	$ 12.25
(w) Kleinwort Bens. Jap. F	$ 31.83
(i) Leverage Cap. Hold	$ 48.72
(w) Luxfund	$ 26.49
(d) Madelaveun Sel. Fund	$11.79
(d) Neuwirth Int'l Fund	$ 8.64
(d) Neuwirth Inv. Fund	$ 1.67*
(w) Rissan Fund	$ 14.95
(w) Nor. Amer. Inv. Fund	$ 5.12
(w) Nor. Amer. Bank Fd	$ 5.21
(w) N.A.M.F.	$ 44.22
(d) Putnam Intern'l Fund	$ 29.24
(d) Renta Fund	$ 57.34
(d) Rentinvest	LF 949.00
(d) Safe Fund	$ 4.27
(d) Safe Trust Fund	$ 9.40
(w) Samurai Portfolio	SF 11.85
(w) Saxo (N.A.V.)	$ 14.37
(w) SMH Special Fund	DM 91.80
(w) Soros Fund	$ 627.79
(w) Talent Global Fund	$ 11.73
(w) Tokyo Pac. Hold (Sea)	$ 46.81
(w) Tokyo Pac. Hold N.V.	$ 64.34
(w) Transpacific Fund	$ 31.72
(d) UNICO Fund	DM 51.16
(r) Unilife Assurance O'seas	$ 8.95
(w) United Cap Inv. Fund	$ 3.11
(m) Utd Int'l Bond Fd	$ 104.57
(d) U.S. Trust Invest Fd	$ 11.22
(w) Western Growth Fund	$7.84
(d) World Equity Grth. Fd	$ 480.43

PEANUTS

B.C.

BLONDIE

BEETLE BAILEY

ANDY CAPP

WIZARD of ID

REX MORGAN

DOONESBURY

JUMBLE

THAT SCRAMBLED WORD GAME by Henri Arnold and Bob Lee

Unscramble these four jumbles, one letter to each square, to form four ordinary words.

KALNF

YADIL

DEIBES

MARKEB

Now arrange the circled letters to form the surprise answer, as suggested by the above cartoon.

Answer here: A

DENNIS THE MENACE

BOOKS

THE YEAR OF THE FRENCH

By Thomas Flanagan. Holt, Rinehart & Winston. 516 pp. $12.9

Reviewed by John Leonard

THE YEAR is 1798, the year that Coleridge published "The Ancient Mariner," the year that Malthus published "An Essay on the Principle of Population." Bonaparte is in Egypt, but we are in Ireland, in County Mayo, and, already:

"We are a land of ruins. Norman keeps and towers. And the queer round towers of which no man knows their antiquity, shattered manor houses of the Tudor times, the roofless abbeys and monasteries savaged by the men of Cromwell, their broken arches gaunt arms against the tumbling clouds. Strongholds . . . basbed and battered away, moss and ivy creeping over their stumps as they lie dreaming beneath the great sky of Ireland. Strangest of all, the great cairns and dolmens and fairy mounds, ruins of some race perished long before the Sons of Melesius led the people of the Gael to these shores. As though in this land all, everything, has been sentenced from the beginning to break apart, fall into pieces, powerless against our harsh divinities of rain and wind and weed and tall grasses."

This is not to mention the bog and the potato, the gibbet and the harp, the Protestant landlord and the Papist peasant. Nnr the omadhauns, gombeens, faction fighters, fiddlers, pipers, tinkers, dancing masters, prophecy men and Whiteboys, the killing of cattle and children. It is to leave out language — Latin, English and barbarous Gaelic — for a moment, anyway, and to omit what language has to do with dreams.

The French are coming, in tall masted ships, with artillery. They are coming, of course, for their own Revolutionary purposes and snug in the bluecoats of personal ambition, to bother the English in Ireland. But Irish poets, in taverns, have promised that when the French arrive an "Army of the Gael," out of the mists, will arise, and 600 years of the boot on the neck will be avenged. With pikes and scythes and the occasional musket and a banner of green silk, the ghosts of William and of Cromwell will be exorcized, like the snakes.

It is a disaster, a murderous anecdote. An exceedingly clever French general with 1,000 of his own troops followed by an angry and bewildered rabble are no match for Lord Cornwallis and his several armies. Rebellion is crushed at Ballinamuck, the place of pigs. The French, according to the rules of war, will be repatriated, to face their Directory. The Irish, being traitors to the British crown, will hang, if they have not already been butchered.

Thomas Flanagan, a professor of English at the State University of New York at Stony Brook, has with nne exuberant book abolished my prejudice against historical novels. I haven't so thoroughly enjoyed an historical novel since "The Charterhouse of Parma," and "War and Peace."

"The Year of the French," consisting of straight narrative, snippets from journals, swatches of invented memoirs, scraps of song, sworn statements to magistra and subalterns, hindsight myth, is grand and sad, with fe cious sweep.

There is, necessarily, a poet, the red-haired, whisky-drinking, centious Owen MacCarthy, schoolmaster tormented by image: "Moonlight falling on hard, flat surface, scythe or swo or stone or spade." He is surrou ed, whether he knows it or not, other people putting pen to pa and equally dismayed by our Ce Lebanon — a Protestant ministe clerk to Cornwallis, a lovelorn g an ambivalent solicitor, vario informers, a historian trying make sense of the Girondists. Th truths collide with MacCarthy His truth is a form of despair.

Look, says MacCarthy to ambivalent solicitor: "Do you that strange shape of a mount over there? It was on the side Ben Bulben that the hero Diarm fought the enchanted boar, as told to us by your wife's frie Ossian. The tumbled one o there, in the other direction Knocknarea. They say that Qu Maeve is buried there . . ."

The solicitor replies: "A time ago."

And MacCarthy nods: "Sh made up a long time ago by fell like myself, you couldn't belie word they said."

And that is the point, in the fo ground of every picture of Irel there is "the shattered castle some old defeat," if "the count scattered with them, like b upon a strand," each still hi poem and a song attached to Every lost cause requires a h words bend their wings, as if were angels. And the magic of t words is a lie.

The image that torments M Carthy is an idea of poetry i the moon on sword and spade poem — like the cheap novels the ooble proclamations every in "The Time of the French" ways reading: like the songs sing and the prophecies they to: like the letters and memoirs histories they write — is a lie, the bog runs with blood. Men fable, dreams themselves "tricks of speech," wishful thinking.

About the only worthwhile England did for Ireland was to upon her a language she has with genius. Flanagan may no long with Yeats and Joyce, b loiters agreeably in their vic and he reminds us of an odd time when, at the very leas knew the faces of those we k We were not cowards with bombs. Maybe Malthus is the cient Mariner.

John Leonard is on the staff New York Times.

Solution to Previous Puzzle

P	E	R	U			G	R	A	R		D	A	S	R
S	V	A	R		B	S	S	T	Y		S	B	I	E
W	I	T	S		A	S	C	O	T		L	O	S	R
S	L	A	U	G	H	T	S	R	R	O	U	S	E	S
			N	I	S	E	I			A	D	E	R	
R	I	N	G	A			P	R	A	T	I			
A	L	E		N	E	A	T	S	N		R	O	I	R
P	L	S	A	T	E	D		A	N	A	G	O	G	E
T	E	R	R		R	A	I	L	S	D		P	O	L
			C	O	O	K	S		M	I	S	T	Y	
	A	R	E	R		D	L	E	I	C				
N	D	U	S	E	D	E	T	E	C	T	I	V	E	S
E	R	S	T		A	B	O	V	O		C	I	T	S
I	T	S	R		P	O	P	I	N		L	A	R	A
L	A	D	Y		S	E	E	N			S	L	A	N

BRIDGE

By Alan Tru

A variety of strategies are possible in competitive bidding situations, and two of them are illustrated in the diagramed deal. A player who fears that the opponents will sacrifice at a high level may underbid in the hope of being allowed to buy the contract eventually. And a player who thinks he will have to sacrifice may put on a bogus show of strength in order to push his opponents out of their depth.

East adopted the first of these strategies and North the second, and the result was a standoff. The final contract and result was "par." Neither side could improve, even after looking at all four hands.

West's negative double of the one-heart overcall promised four cards in spades, so East would have been justified in bidding four spades directly. Instead, East did his best to sound like a man with a much weaker hand.

North's strategy was to sound much stronger than he really was, hence his cue-bid in diamonds to make it appear that he was looking for a slam. He hoped that his opponents would sell out to five hearts for fear of pushing him to a makable slam, or, alternatively, that they would take a phantom save six hearts would have been Trade North's diamond for So singleton spade, and a grand is a lay-down.

Similarly, East-West would a sure 13 tricks if both of them a doubleton in one of the opp suits and a void in the othe East's decision to double six h was a doubtful one, though j fied by the results.

There was annther dang East, arising from his ca underbidding. West might ha terpreted the double as "Ligh asking for an unusual lead would then have led a club, ea ing his partner to ruff, and S would have made his doubled s

NORTH
♠ 1054
♡ A 97632
◇ 6
♣ K J 10

WEST
♠ J 873
♡ 4
◇ K Q J 5 3
♣ 8 6 4

EAST (D)
♠ A K Q 9 2
♡ J
◇ A 10 9 7 4 2
♣ 3

SOUTH
♠ 6
♡ K Q 10 8 5
◇ 5

Spanish Buildi Gets AIA Awar

KANSAS CITY, Mo. - (A The Joan Miro Foundation ing in Barcelona has been c by the American Institute of A tects as one of the 15 best arc tural designs of 1979.

The Spanish building wa only foreign project honored b AIA in its 1979 awards. The building was designed by Jackson and Associates in Cambridge, Mass.

Three U.S. museums received awards, as did a 46 New York City office tower, th ticorp Center. The museums the St. Louis Art Museum, by dy Holzman Pfeiffer Associat New York; the Louisville Museum of Natural History Science, by Louis and Henr nf Louisville, and the Cente American Arts at Yale Unive by Herbert S. Newman Asso nf New Haven, Cnnn.

Evert, Turnbull Advance in Paris

By Nick Stout

RIS, June 7 (IHT) — Chris t Lloyd dispelled all doubts t her fitness to win a third title he French Open tennis cham- ships today with a solid 6-1, 6- mifinal victory over Dianne nholtz.

vert, who is appearing at Ro- Garros Stadium for the first since winning the French mpionship in 1975, will play in women's final against Wendy nbull, who earlier defeated Re- Marsikova, 6-4, 6-3.

ecause of the time that Evert off before and after her mar- in April to John Lloyd, a ten- ro from Britain, many believed she would be vulnerable here, cially in light of her loss to Tra- ustin in the Italian Open last th — her first defeat on clay 125 consecutive victories.

t if Evert retains the poise and smanship that she displayed nst Fromholtz, there should be stopping her from regaining title that she first won in 1974. n, at 19, she became the young- player to capture the French n since Christine Truman won age 18 in 1959.

own 15-40 in the first game, t came back and won the first sets, placing her volleys per- down the lines. Fromholtz serve to make it 4-1, but Evert hed the set without yielding her point.

Fired Up

Someone told me that Dianne playing better in this tourna- ," said Evert, who previously ed Fromholtz as her No. 1 rival here. "That's what had me fired up. She had good scores throughout the week. But she was going for too many winners today and on this court you have to be patient."

Fromholtz, seeded third, did not contest Evert's assessment.

"I felt terribly impatient," she said, evaluating the match as her worst in some time. "And I knew Chris would be patient. She beat me mentally."

The victory is Evert's fourth this year over Fromholtz in five matches. They last met in the final of the Federation Cup in Madrid last month, when Evert won, 2-6, 6-3, 8-6.

Fromholtz momentarily took the lead in the second set, when, after trailing, 2-0, she won three straight games.

"At that time I started to settle down," Fromholtz said. "But I just didn't feel like I wanted to stay up there. And that's bad, because when you play Chris you have to stay up there."

Little Trouble

Turnbull had little trouble with Marsikova, frequently charging the net, as is her style, and catching her Czechoslovak opponent out of position.

Marsikova, who had reached the semifinals here for the third straight year, losing both times previously to Mima Jausovec, fell to the clay during the fourth game and was subsequently bothered by a sore right knee.

An oddity of the match was the string of seven service breaks after Turnbull held serve to win the first game. When asked for an explanation, Turnbull put the blame — not too convincingly — on the weather.

"It was windy and the sun was in and out," she noted. "It must have been a matter of concentration."

Turnbull, who with Kerry Reid holds the Wimbledon crown for women's doubles, reached the final of the U.S. Open in 1977, when she lost to Evert after upsetting Rosie Casals, Virginia Wade and Martina Navratilova. While her opposition was less formidable this time — Paula Smith, Jeanne Duval, Louise Allen and Hana Mandlikova — Turnbull found the route difficult.

"Regina and Hana are very good clay court players and I haven't been doing well in singles," she said. "Maybe it was harder here."

The final against Evert, whom Turnbull has yet to defeat, should be exciting because of the contrasting styles of play.

"I enjoy playing Wendy because her game is so different from mine," Evert said. "She is a very exciting and aggressive player and that presents a challenge for me. I think it will be an interesting final, more interesting than if you had two baseliners playing."

The men's finalists will be decided tomorrow, when Vitas Gerulaitis tries to defeat Bjorn Borg after 10 unsuccessful career attempts and Victor Pecci, who upset Guillermo Vilas in the quarterfinals yesterday, plays Jimmy Connors.

ngland Takes ead in Soccer

FIA, June 7 (UPI) — England — like the defeated Bulgaria, 3-0, yesterday to the Group One leadership Northern Ireland in the Euro- soccer championships.

evin Keegan, the European of the year, scored for Eng- in the 33d minute. David Wat- headed in a corner shot in the minute and Peter Barnes d the final goal moments later.

Copenhagen, Denmark de- d Northern Ireland, 4-0, to five-game winless streak. Pre- Elkjar, a 20-year-old striker, d a hat trick for the Danish.

nt Quits Racing er Bad Season

NDON, June 7 (Reuters) — in's James Hunt, the world ula-One racing champion in who has failed to win a race year, announced tonight that is quit the circuit.

nt, 31, had been expected to from racing at the end of this n, but has decided that his car is not competitive enough.

Frank Taveras of the New York Mets grimaces as he is tagged out by Vic Correll of Cincinnati.

Martinez, Orioles Stop Royals

BALTIMORE, June 7 (UPI) — Dennis Martinez pitched a four-hitter and Gary Roenicke hit a solo home run last night as the Baltimore Orioles defeated the Kansas City Royals, 3-0.

The victory returned the Orioles to first place in the American League East.

Martinez (8-2) struck out nine in pitching his second shutout of the year and permitted only one runner to reach third base. Willie Wilson and George Brett had two hits apiece for Kansas City.

The Orioles took a 1-0 lead in the fourth on Rich Dauer's single and Lee May's run-scoring double. Baltimore added a run in the fifth on Kiko Garcia's double and Dave Skaggs' single. Roenicke followed in the sixth with his 11th homer.

Yankees 3, Twins 2

In New York, Jim Spencer hit a two-out pinch single off reliever Mike Marshall to score Graig Nettles in the ninth as New York beat Minnesota, 3-2. Ron Guidry (6-4) outdueled Jerry Koosman (7-4), pitching a five-hitter.

White Sox 8, Red Sox 5

In Boston, Milt May hit a two-run home run and Lamar Johnson and Eric Soderholm added solo homers to lead Chicago to an 8-5 victory over Boston.

Brewers 4, Rangers 3

In Milwaukee, Gorman Thomas hit his 13th home run and Cecil Cooper collected three hits as Milwaukee defeated Texas, 4-3. Thomas hit a two-run homer in the second and Cooper, who also singled twice, doubled home a run in a decisive two-run rally in the seventh.

Blue Jays 5, Angels 4

In Anaheim, Calif., rookie Dan Ainge tripled home a run in the ninth and then scored in Toronto's 5-4 victory over California. Jesse Jefferson, the Toronto pitcher, ended a personal 13-game losing streak dating to last August.

Mariners 4, Tigers 3

In Seattle, Willie Horton hit his 300th major-league home run and Ruppert Jones added a solo homer, leading Seattle to a 4-3 victory over Detroit.

Indians 6, A's 4

In Oakland, Gary Alexander beat out a hit to shortstop leading off the eighth inning and scored on a triple by Duane Kuiper as Cleveland beat Oakland, 6-4, for its fourth straight victory.

Expos 12, Braves 2

In the National League, at Atlanta, Ellis Valentine drove in three runs in an 11-run fourth inning and Ross Grimsley and Dave Palmer combined on a six-hitter, leading Montreal to a 12-2 victory over Atlanta. Eight of Montreal's fourth-inning runs scored before an out was recorded.

Cardinals 6, Giants 5

In St. Louis, Garry Templeton singled home Tony Scott in the eighth as St. Louis defeated San Francisco, 6-5, for its seventh straight victory.

Astros 4, Phillies 3

In Houston, Denny Walling hit a three-run pinch homer in the seventh to tie the score and Jose Cruz brought home the winning run in the eighth on a fielder's choice as Houston beat Philadelphia, 4-3. Walling has five hits in his last six pinch appearances and has batted in five runs.

Cubs 3, Padres 0

In Chicago, Rick Reuschel and Bruce Sutter combined on a four-hitter in Chicago's 3-0 victory over San Diego. Dave Kingman tripled home a run in the first inning and scored on a double by Jerry Martin.

Mets 5, Reds 3

In Cincinnati, Joel Youngblood's tie-breaking double highlighted a four-run seventh inning as New York defeated Cincinnati, 5-3.

Pirates 5, Dodgers 4

In Pittsburgh, Bill Robinson's second home run of the game, a two-run, two-out shot, capped a four-run eighth inning as Pittsburgh beat Los Angeles, 5-4.

Wednesday's Line Scores

AMERICAN LEAGUE

Kansas City 000 000 000—0 4 0
Baltimore 000 111 00x—3 7 0
Splittorff and Porter; D.Martinez and Skaggs. W—D.Martinez, 8-2. L—Splittorff, 8-5. HR—Baltimore, Roenicke (11).

Chicago 220 012 100—8 13 1
Boston 000 010 400—5 14 1
Barrios, Trout (7) and M.May; Stanley, Wright (2), Burgmeier (6), Drago (9) and Allenson, O'Berry (7). Fisk (10). W—Barrios, 5-3. L—Stanley, 5-4. HRs—Chicago, Johnson (3), M.May (11), Soderholm (6).

Texas 200 010 000—3 7 0
Milwaukee 020 020 00x—4 8 1
Comer, Rolsich (7), Kern (7) and Sundberg; Sorenson and B.Martinez. W—Sorenson, 8-5. L—Comer, 5-5. HRs—Texas, Grubb (9), Putnam (4); Milwaukee, Thomas (13).

Minnesota 100 000 001—2 5 0
New York 000 200 001—3 0 1
Koosman, Marshall (9) and Wynegar; Guidry and Munson. W—Guidry, 6-4. L—Koosman, 7-4.

Detroit 300 000 000—3 6 0
Seattle 200 011 00x—4 7 0
Morris, Tobik (7) and Parrish; F.Bannister, Rowley (8), McLaughlin (9) and Cox. W—F.Bannister, 2-5. L—Morris, 3-2. HRs—Detroit, Staub (4); Seattle, Horton (12), R.Jones (12).

Toronto 020 000 102—5 8 1
California 001 010 011—4 10 3
Jefferson and Davis; Frost, LaRoche (7), Clear (9) and Donohue. W—Jefferson, 1-5. L—LaRoche, 2-5. HRs—California, Donohue (1), Grich (12), Ford (6).

Cleveland 200 010 111—6 12 1
Oakland 011 001 100—4 8 3
Wise, V.Cruz (8) and G.Alexander; McCatty, Heaverlo (7), Lacey (9) and Newman. W—Wise, 6-5. L—Heaverlo, 2-5. HRs—Oakland, Newman (10), Page (4).

NATIONAL LEAGUE

New York 000 001 400—5 12 0
Cincinnati 001 100 010—3 7 1
Orosco, Murray (6), Lockwood (7), Glynn (9) and Stearns; Bonham, Sarmiento (7), Tomlin (7), Borbon (7), Hume (8) and Correll. W—Murray, 3-5. L—Sarmiento, 0-1. HR—Cincinnati, Foster (11).

San Diego 000 000 000—0 4 2
Chicago 200 000 10x—3 9 0
Jones, Fingers (7) and Kendall; Reuschel, Sutter (8) and Foote. W—Reuschel, 4-5. L—Jones, 5-4.

Los Angeles 000 100 120—4 7 1
Pittsburgh 000 100 04x—5 7 0
Reuss, Forster (8), Welch (8) and Yeager; Whitson, Romo (8), Tekulve (9) and Nicosia. W—Romo, 3-2. L—Welch, 4-3. HRs—Los Angeles, R.Smith (5), Garvey (10), Lopes (14); Pittsburgh, B.Robinson 3 (14).

Montreal 000 11 00 100—12 15 2
Atlanta 101 000 000— 2 6 4
Grimsley, Palmer (8) and Carter, Dyer (8); P.Niekro, R.Mahler (4), Skok (8) and Pocoroba, Matan (8). W—Grimsley, 5-4. L—P.Niekro, 6-9.

Philadelphia 000 000 000—3 7 1
Houston 000 000 31x—4 8 1
Lerch, Reed (7), McGraw (8) and Boone; Richard, Sambito (8), Roberge (9) and Bochy. W—Sambito, 3-2. L—Reed, 5-2. HRs—Philadelphia, Boone (4); Houston, Walling (1).

San Francisco 101 110 100—5 10 0
St. Louis 000 000 21x—6 13 0
Nastu, Griffin (6), Roberts (7), Moffitt (7), Lavelle (8) and Hilt; Sykes, Bruno (6), McEnaney (7), Schultz (8), Littell (9) and Simmons. W—Schultz, 4-1. L—Moffitt, 1-4. HRs—San Francisco, Clark 2 (8), Herndon (3); St.Louis, Hendrick (6), Tyson (3).

A Businessman in the Booth

Fran Tarkenton Is a Fan Again

By Red Smith

NEW YORK, June 7 (NYT) — There were no vice presidents in the conference room at American Broadcasting Companies on Tuesday, so Francis Tarkenton laid his briefcase on the polished table, pulled up a cushioned chair and sat down, looking like one who belonged there.

"I'm a businessman," he said simply. "Have been for a long time. We have a management consulting firm that is now eight years old. There is Larry Miller, the president. The firm has done well. We have accounts literally all over the world. That's my principal interest now that I've retired as a player but I'm looking forward to the new broadcasting assignment."

After 18 seasons as a quarterback in the National Football League, Francis will lease his pear-shaped tones to ABC on six Monday nights when Don Meredith isn't in the broadcasting booth and for three preseason games and the Pro Bowl in Honolulu.

"I'm looking forward to it," he said, "and it has revived the sort of interest in football that I had before I was a player. As a kid in Georgia I had a great collection of bubble gum cards — Sammy Baugh, Steve Van Buren, Bucko Kilroy — and I wish I still had them. I subscribed to those Street & Smith football annuals and clipped all the pictures of the college stars but this was just at the time of that big cribbing scandal at West Point. So none of the Army stars played for Army that fall, but I had their pictures.

"Now, getting ready for this job, I'm feeling like a fan again. I subscribe to Pro Football Weekly and read it from cover to cover and keep a file of information. And the ABC station in Atlanta saves me copies of all the pro football stuff it receives and I've started a file of that. I'm a fan again, for the first time in years."

Everybody's a Strategist

"When you're watching television," the old quarterback was asked, "do you second-guess the quarterback?"

"Sure. The intrigue of football, the fascination, is that everybody's a strategist. That was the fun of football to me when I was playing, being part of the planning process working out the game plan during the week. I wanted to be in on it and I always got along with the offensive coordinator wherever I was, with Joe Walton when I was with the Giants and with Jerry Burns at Minnesota."

"Suppose you had played for a coach who sent in all the plays."

Tarkenton hesitated. "It didn't happen," he said slowly, "so I don't know how I would have responded to that. I'm glad it didn't happen. I wouldn't have got the same satisfaction out of the game."

"Watching TV, do you talk back to the broadcaster?"

"Of course. Especially when they're speculating about whose responsibility it was on the defense. You can't tell from up there in the booth. You can't tell unless you know the defense. Even the players on the team don't necessarily know more than their own assignments.

"You can ask a defensive back, 'When you're handling your assignment on a play, what are the other guys on defense doing to collaborate?' Lots of times he won't have any idea, though he may know his own job thoroughly. Once I said to a lineman, 'Call a sweep.' He didn't know how. Maybe 29 G-O meant something to him when he heard it in the huddle but when he thought of a sweep he didn't think '29 G-O'."

Monopoly on Records

When Francis broke in as a pro, Sammy Baugh held most of the passing records in the NFL. When he retired after last season, he held them all. Most passes attempted, most completions, most yards gained — it would take pages to list them. There must be one that gives him more satisfaction than any other.

He shook his head. "I broke in with an expansion team," he said, meaning the Minnesota Vikings. "I had a chance to try to help the team grow up, and we did accomplish some things. We won the first game we ever played and it was against the Chicago Bears, who were famous then. We won three games in our first season and we kept getting better.

"Then I came to New York when the Giants had hit bottom. They had won 1 and lost 12 and tied 1. We got to 7-7 and then to 9-5. Then I went back to Minnesota where they had a good team and we won in our division and our conference. Not many quarterbacks have had those three kinds of experience, an expansion team, a team that's down and a good team.

"It's fun to be with a winner but the greatest satisfaction of all is to help a team move up. That's more satisfying than any record."

As a senior at Georgia, Tarkenton was disappointed not to be chosen in the first round of the NFL draft. The Vikings picked him on the third round. Now he says he wouldn't pick a quarterback on the first round. It's too risky, he says, to gamble away the top choice on a position with so many unknown quantities.

Of the men he'll work with in the broadcasting booth, he has known Don Meredith longest. They met at a football camp in Estes Park, Colo., when they were just starting college. Like Tark, Meredith broke in with an expansion team. "And was booed more in Dallas," it was suggested, "than you were in Minnesota."

"Oh, no," Tark said. "No way. I must have got it more because I stayed around longer. But no matter where you go, you'll get the boos, and you always hear it, and you never like it."

Major League Standings

AMERICAN LEAGUE

East	W	L	Pct.	GB
Baltimore	33	21	.611	—
Boston	31	21	.596	1
Milwaukee	32	25	.51	2½
New York	30	23	.545	2½
Detroit	25	24	.510	5½
Cleveland	26	27	.491	6½
Toronto	14	42	.250	20

West	W	L	Pct.	GB
California	33	23	.589	—
Kansas City	31	24	.564	1½
Minnesota	29	23	.558	2
Texas	30	24	.556	2
Chicago	26	28	.481	6
Seattle	25	29	.386	11½
Oakland	18	38	.321	15

Wednesday's Results

Chicago 8, Boston 5
Baltimore 3, Kansas City 0
New York 3, Minnesota 2
Milwaukee 4, Texas 3
Toronto 5, California 4
Cleveland 6, Oakland 4
Seattle 4, Detroit 3

Thursday's Games

Minnesota (Zahn 3-1) at New York (Beattie 3-3)
Texas (Jenkins 6-2) at Milwaukee (Travers 3-3)
Chicago (Krawec 6-3) at Boston (Rainey 3-3)
Kansas City (Busby 2-2) at Baltimore (Palmer 6-3)

NATIONAL LEAGUE

East	W	L	Pct.	GB
Montreal	30	19	.612	—
St. Louis	29	19	.604	½
Pittsburgh	27	23	.540	3½
Philadelphia	29	25	.537	3½
Chicago	22	27	.449	8
New York	20	30	.400	10½

West	W	L	Pct.	GB
Houston	34	24	.586	—
Cincinnati	30	25	.545	2½
Los Angeles	27	21	.464	7
San Francisco	26	30	.464	7
San Diego	26	32	.448	8
Atlanta	20	35	.364	12½

Wednesday's Results

New York 5, Cincinnati 3
Chicago 3, San Diego 0
Pittsburgh 5, Los Angeles 4
Montreal 12, Atlanta 2
St. Louis 6, San Francisco 5
Houston 4, Philadelphia 3

Thursday's Games

San Diego (Perry 5-4) at Chicago (Holtzman 4-4)
San Francisco (Knepper 5-2) at St. Louis (Denny 3-4)

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(Continued from Back Page)

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Observer

Doctoring 'Hamlet'

By Russell Baker

NEW YORK — Noting my recent adventure in the musical theater, a Poughkeepsie woman wrote to ask, "Why didn't Shakespeare ever write a musical, since that's where the big theater bucks seem to lie? Wouldn't 'Hamlet' have run almost as long as 'Grease' if it had been done as a musical?"

The fact is that Shakespeare did consider doing "Hamlet" as a musical, but decided against it after three minutes of reflection. Some of his considerations were as follows:

Baker

- Everybody would tell him that "Hamlet" was a terrible title for a musical, and the producers would reinforce the argument with a market survey showing that seven out of 10 people would rather see a show with the word "happy" in the title. The publicity agent would warn him that if he persisted, Broadway wise guys would knock it in the gossip columns as "Hamlet and Egglets."
- Instead of setting the opening on a dark castle parapet with three male actors waiting for a ghost, he would have to revise the script to open in a sunlit square with 30 dancers singing about the gaiety of Renaissance Italy.
- The role of Ophelia would have to be beefed up to support at least four songs because the producer would never be able to persuade a female star to take the role unless she had as many songs as the leading man.
- The plot would have to be changed to eliminate the deaths of Polonius, Claudius, Rosencrantz, Guildenstern, Ophelia, Laertes and Hamlet because nobody would go to see a musical in which somebody dies.
- All the soliloquies would have to be cut to three lines apiece to prevent the audience from falling asleep between musical numbers.

In fact, as Shakespeare wrote in his memoirs, he had the ingenuity to make these necessary changes and might well have had a hit as successful as "The Wiz." It was the little things that finally set his mind against the project.

He knew, for example, that his best lines would be appropriated by the lyricist and set to music. "You cannot have Hamlet saying, 'To be or not to be,' " the lyricist would tell him. Shakespeare did not have to ask why. He knew the immutable law of the musical theater. If "To be or not to be" was to be sung in "Bare Bodkin," Hamlet's big production number with the whole chorus, it could not be spoken in the dialogue.

This meant Shakespeare would have to come up with another line to cue the song. Something like, "Suppose I my quietus make?" This would cue the chorus to start singing:

Get out your old bare bodkin
And show it to your odd kin
And we'll hitch old Dobkin to the shay, etc.

Whereupon Hamlet would respond with:

My fardels lie over the ocean
My fardels lie over the sea
That's why I'm in such a commotion:
To be or not to be. Whoopee!

Shakespeare did not object to losing "To be or not to be" to the lyricist, but he knew that if he substituted "Suppose I my quietus make?" as the song cue it would lead to endless quibbling with the actor playing Hamlet. This fellow would corner him in the wings and ask questions like, "Why do I say, 'Suppose I my quietus make?' instead of, 'Why don't I just go ahead and make my quietus?' "

Shakespeare would have been willing to agree to this, but he knew that next day the actor would be after him again saying, "Can't you give me a better word than 'quietus'? It's not getting a laugh."

Shakespeare knew that if he did the critics would pan him for not being able to make a decent pun anymore and urge the masses to stay away from the Globe Theater, which would probably end his writing career and send him back to acting in road-company tours of "Gammer Gurton's Needle."

In any case, everybody had told him you couldn't have a successful musical unless you could explain in one sentence what it was about, and, as Shakespeare used to tell Ben Jonson over ale at the Mermaid Tavern, "How do I know what 'Hamlet's' about? If I knew what it was about, I would have written it in a sentence instead of five acts."

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The Duke of Atholl claims the distinction of being the only man in Western Europe who legally commands his own regiment, made of 60 kilted, gun-toting ex-military men, 12 pipers and 8 drummers.

By Alison Muscatine

BLAIR ATHOLL, Scotland (NYT) — His castle, its white stucco turrets rising above the green forests in Perthshire, resembles a gingerbread fortress in Disneyland. The last time he fired cannons outside the castle's main entrance, the blast did nothing more than shatter 12 panes of glass. Futhermore, he describes himself as a pacifist, and there are rumors that he has never learned to salute properly.

All of this should reassure anyone who takes his potential for combat too seriously. On the other hand, in the British Isles, where carrying a weapon is as much a moral infraction as a legal one, and where Scottish home rule is a lively political issue, one must not ignore him either.

Unlike Britain's other dukes, earls, barons, and princes, George Iain Murray inherited more than land, title, riches or fame. His Grace, a towering 47-year-old bachelor who became Scotland's 10th Duke of Atholl in 1957, also inherited his own private army, the Atholl Highlanders, whose dwindling forces he resurrected in 1966.

Pipes and Drums

The duke now claims the distinction of being the only man in Western Europe who legally commands his own regiment, made up of 60 kilted, gun-toting former military men, 12 pipers and 8 drummers. Its regimental colors were presented by Queen Victoria when she and Prince Albert visited Blair Castle in 1846, and the presentation was a gesture of her appreciation for the Athollmen's historic "devoted loyalty."

The colors, which bear the motto "Furth, Fortune, and Fill the Fetters," hang in the castle's elegant ballroom. A second set, presented 40 years later, hangs upstairs in a spacious hall. But the duke has had trouble finding someone to present a new, third set of colors, now tucked away under some linen in the castle's attic. At the moment his only option is to present the colors himself.

The duke plays down the military aspects of owning a regiment, saying, "I'm quite well suited to have a private army because I'm completely nonmilitary." He insists that his troops are purely ceremonial and the regiment exists only because it is "historically interesting and good publicity for Blair Castle."

But last year, when the House of Lords debated the Scottish devolution bill, there were whispers about the possibility of a Scottish military uprising if the duke's army ever decided to mobilize for political purposes.

"I certainly could mobilize the army, but it couldn't do much after that," the duke said with characteristic good humor, adding that gunpowder for the cannons, which he receives from the British Army, is in short supply because of recent bombings in Ireland.

In addition to those who are wary about the possibility of well-armed Scotsmen advancing toward the the English border, there may be some others who were suspicious when the Highlanders carried fixed bayonets through the streets of Edinburgh in 1968 — a special right granted during the city's Sir Walter Scott centenary.

"I think it would be a courtesy to inform the Lord Provost before we did such a thing again," the duke said, smiling, "although in theory we can march in any time we please."

For all their military potential, the Highlanders haven't fired a shot since 1808, nor have they been offered for combat since 1854, when the 6th Duke of Atholl pledged their services to Palmerston at the outbreak of the Crimean War. They march once a year on the 135,000-acre grounds of Blair Castle, and once or twice at celebrations elsewhere in the British Isles.

They also serve as honor guards for distinguished visitors, such as Crown Prince Akihito of Japan, who has come to Blair Atholl twice in recent years, and at Highlander weddings and funerals. This year they will lead a centenary parade on the Isle of Man, which was once part of the Atholl domain.

Family Traditions

Only local landowners can become officers in the Atholl Highlanders, and membership in the rank-and-file is generally restricted to workers on the castle estate, who must be invited to join by the duke. Those who are slack about practice sessions or performances are asked to withdraw from the ranks. The army receives no pay, only uniforms, weapons, and a banquet in the castle after each parade.

"It's an honor to be asked to join the Highlanders," said Sgt. Maj. James Stewart, who is also the head tour guide at Blair Castle. "There is great family tradition in this army," he added, pointing to original parade rolls bearing such names as MacDonald, Grant, MacCaskill, Clyne, Kippen, and Moncreiffe — names still reflected in the regiment's rolls. Family continuity is important to Scots.

The duke, commander in chief and colonel of the Highlanders, spends most of his time in London, where he is chairman of the board of Westminster Press and a member of the House of Lords. His politics are more English than Scottish Nationalist, and he seldom spends time in Scotland, journeying north only once or twice a month.

He leaves administration of his "army" to his officers who, he said, deserve all credit for keeping the regiment alive. "The army will be self-perpetuating because its members are interested in it," he said. "But death duties will clobber the estate, which could present problems for my heirs."

Unless the duke marries, heirs could be a problem too. Both of his brothers are dead, and so the most likely candidate for succession now is Bruce Murray, a distant 18-year-old relative living in South Africa. The duke has never met him.

Robin Laurance, New York Times

Atholl Highlanders' commander
"I'm completely nonmilitary."

PEOPLE: *Ali, Irritated by Press, Cancels Paris Show*

Heavyweight boxing champion **Muhammad Ali** has cancelled an exhibition bout scheduled for Monday in Paris because he is upset by press coverage of his European tour. The organizers of his Paris trip said Ali had called off the five-round bout against former world champion **Jimmy Ellis** because he was dissatisfied with reporting of his tour by the Belgian and West German press. Only 1,000 tickets were sold for his show in an 8,000-seat hall in West Berlin earlier in the week . . . Elsewhere on the sports front, New York Yankees outfielder **Reggie Jackson** was sued for $150,000 by a woman who charged he slapped her and threw her to the ground at a Manhattan movie theater. **Cassandra Smalls** claimed that Jackson attacked her July 12 at the Loews Cine Theater because she tried to get his autograph. Jackson said Smalls was trying to hit the woman he was with and that he only grabbed her arms in an attempt to stop her.

* * *

Twenty-five years ago a divinity student named **Andrew Young** married **Jean Childs**, a junior-college instructor, and they thought it was such a good idea that they did it again at the Waldorf-Astoria Hotel in New York. With family and old friends around from Young's days as a civil-rights activist, the United States delegate to the United Nations and his wife renewed their vows. Presiding was the Rev. **Nicholas Hood**, who officiated at the original ceremony. He told how members of the wedding party had piled into several cars and were tooling along in Mississippi when Young was stopped for speeding. He was hauled before a judge who threatened to throw the newlyweds into jail in separate cells. The others in the wedding party quickly scraped together the $17.50 to pay the fine.

* * *

All eyes were on **Elton John** and the way he had been turning on audiences in the Soviet Union, and overlooked in the whoopdedoo was **Victoria de los Angeles**, who was in Russia at the same time and was receiving impressive receptions in several cities. The soprano's final concert, in Moscow, was televised throughout the country, and at Philharmonic Hall in Leningrad the demand for tickets was so great that hundreds of people had to stand in the balcony. Did it bother her that John got so much attention, and she so little? Not at a said Miss de los Angeles. The sin er, now starting a long South Am ican tour, said: "That question be asked in every country. The put more emphasis on the rock roll. I know nothing about the stars, even if I like them very mu What can you do about it?"

* * *

President Carter, White Hou staffers and top government of cials will get to read "Docum bury," even though other Washin ton Post subscribers will have to without it. The Post dropped publi cation of Gary Trudeau's Pulitz Prize-winning comic strip when was purchased by the Washingt Star, even though the Post contra had a few more weeks to run. Ca Carter and others in officialdo will see it by virtue of the Wh House daily news summary, whic is including the strip.

* * *

Even in his lightweight unifor Police Constable **Leslie Knowles** Cardiff, Wales, felt a bit warm the late New York spring. He pa it no mind, although the sa could not be said about passers when they saw him outside Patrick's Cathedral in his tunic helmet. Constable Knowles wa town to help mark the 150th an versary of the bobbies (named for their organizer, Sir Ro Peel), and he briefly walked a with Officer **Arthur McHugh** of Midtown North Precinct. The stable had a fine time, but was tled to learn that New York 1,518 murders last year. Wales two.

* * *

Terry McEwen, the Canad born manager of the classical sion of London Records, wil come the general director of San Francisco Opera, accordi officials of the opera comp McEwen, 50, will replace ret 74-year-old **Kurt Herbert** who came to San Francisco in after serving as choral directo the Chicago Civic Opera. Ad Viennese who emigrated United States in 1938, conduc various European cities and w assistant to **Arturo Toscanini** 1936 Salzburg Festival. Mo will take over the position in becoming the first head of th Francisco Opera not to have been a conductor.

—SAMUEL JUS

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